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Developmental Regulation in
Adolescents With and Without Emotional and
Behavioral Disturbances Attending Different School
Types

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1. Abstract (Zusammenfassung)

1.1 Abstract

Adolescents are (co-)producers of their own development as they construct, pursue, and adapt developmental goals (Heckhausen et al., 2010). Internal and external conditions as well as the attainability of goals affect the goal content and the goal pursuit. Research implies that especially adolescents with EBD who are distinguished by behavioral problems and adverse internal and external conditions might lag behind their undisturbed peers in several aspects of psychosocial development (Davis & Vander Stoep, 1997). In this context, school type differences have not been taken into account even though in Germany adolescents with EBD either attend a regular school or a special school focusing on students with EBD. However, different school types might as well lead to systematic differences in the goal attainment of adolescents with and without EBD. Although research results imply a poorer goal attainment of adolescents with EBD, reasons for those outcomes have not been analyzed so far. Thus, the present thesis is the first to systematically study the developmental regulation of adolescents with EBD attending different school types while considering possible explanations for their lower goal attainment: future expectations and goal striving processes.

Adolescents with and without EBD attending a regular or a special school were compared cross-sectionally and longitudinally. In the cross-sectional studies, 261 special school students (153 with EBD, 108 without EBD) and 294 regular school students (116 with EBD, 178 without EBD) were included. In the one year follow-up, 124 students from special schools (72 with EBD, 52 without EBD) and 133 students from regular schools (55 with EBD, 78 without EBD) participated. Whereas adolescents with EBD were less successful than adolescents without EBD in their perceived attainment of seven out of 12 developmental tasks, only one school type difference was found. Regarding expectations about the timing of adulthood transitions, adolescents with EBD expected to marry at an earlier age and students from special schools were more likely to anticipate remaining unmarried. Neither goal engagement nor the goal engagement's efficacy regarding the attainment of academic competence and career choice differed as a function of school type or EBD status.

Interventions, such as life skills programs or resource-building interventions that focus on single goals, need to be employed to promote a successful development of adolescents with EBD. Reducing symptoms of EBD might also have a positive impact on adolescents' progress with developmental goals. Future research focusing on other explanations for the lower attainment of developmental goals of adolescents with EBD is needed.

1.2 Zusammenfassung

Jugendliche sind Mitgestalter ihrer Entwicklung, indem sie sich Entwicklungsziele setzen, diese aktiv verfolgen und sie abhängig von auftretendem (Miss-)Erfolg verändern (Heckhausen et al., 2010). Zielinhalte aber auch Prozesse der Zielverfolgung werden allerdings von inneren und äußeren Bedingungen beeinflusst. Insbesondere Jugendliche mit emotionalen und Verhaltensauffälligkeiten (engl. emotional and behavioral disturbances, EBD) haben ungünstige Bedingungen für das Setzen sowie das Verfolgen von Entwicklungszielen, sodass sie gefährdet sind eine maladaptive Entwicklungsregulation zu zeigen. In diesem Zusammenhang wurden unterschiedliche Schultypen in der Forschung bisher außer Acht gelassen, obwohl Jugendliche mit EBD in Deutschland entweder eine Förder- oder eine Regelschule besuchen. Zudem wurden mögliche Gründe für die weniger erfolgreiche Entwicklungsregulation von Jugendlichen mit EBD nicht weiter erforscht. Daher ist die vorliegende Dissertation eine der ersten Arbeiten, die die Entwicklungsregulation von unterschiedlich beschulten Jugendlichen mit EBD systematisch untersucht. Überdies sollen mögliche Erklärungen für den geringeren Entwicklungserfolg von Jugendlichen mit EBD betrachtet werden, nämlich Erwartungen über die Zukunft sowie Prozesse der Zielverfolgung.

Jugendliche mit und ohne EBD von Regel- sowie Förderschulen wurden in Quer- und Längsschnittstudien anhand von Selbstberichten untersucht. In den Querschnittstudien wurden 261 Förderschüler (153 mit EBD, 108 ohne EBD) und 294 Regelschüler (116 mit EBD, 178 ohne EBD) befragt. Im 1-Jahres Follow-up nahmen 124 Förderschüler (72 mit EBD, 52 ohne EBD) und 133 Regelschüler (55 mit EBD, 78 ohne EBD) teil. In sieben von 12 Entwicklungsaufgaben berichteten Jugendliche mit EBD weniger weit zu sein als Jugendliche ohne EBD. Im Gegensatz dazu wurde nur ein Schulunterschied gefunden. Betrachtet man die Zukunftsvorstellungen der Jugendlichen erwarteten Jugendliche mit EBD früher zu heiraten als Jugendliche ohne EBD. Zudem erwarteten Förderschüler eher unverheiratet zu bleiben als Regelschüler. In Bezug auf das Anwenden von Zieleverfolgungsstrategien oder der Effektivität dieser Strategien gab es keine Unterschiede zwischen den Schultypen oder Jugendlichen mit vs. ohne EBD.

Interventionen, die die erfolgreiche Entwicklung von Jugendlichen mit EBD fördern, sollten vermehrt eingesetzt werden, z.B. Lebenskompetenzprogramme oder ressourcenfokussierte Programme, die das Erreichen eines bestimmten Entwicklungsziel fördern. Zudem könnte ein höherer Erfolg im Umgang mit Entwicklungszielen auch durch ein Reduzieren der EBD-Symptome erreicht werden. Weitere Forschung zu möglichen Erklärungen für den geringeren Erfolg mit Entwicklungszielen von Jugendlichen mit EBD ist notwendig.

2. Introduction

2.1 Definitions

The present thesis examines the attainment of developmental tasks of adolescents with emotional and behavioral disturbances (EBD). EBD need to be distinguished from other terms such as internalizing/externalizing problems or psychological disorders. Thus, short definitions of how these terms are used in this thesis are made at this point.

Internalizing and externalizing problems represent common forms of behavioral problems that can be assessed on a continuum ranging from nonexistent to high (Kauffman, 2005). Whereas externalizing behaviors are referred to as under-controlled behaviors, internalizing behaviors are often called over-controlled behaviors (Kauffman, 2005). Individuals with externalizing symptoms direct their behavior against the environment, for example in the form of aggression, hyperactivity, or outbursts of rage. Internalizing behaviors are usually characterized by inner-directed and covert behaviors. They include symptoms of anxiety, depression, withdrawal, and psychosomatic symptoms (Myschker & Stein, 2014).

In the present thesis, the term EBD is used to describe individuals that have crossed the cut-off of clinically relevant internalizing and/or externalizing problems. However, additional diagnostic criteria necessary to diagnose a psychological disorder -- such as the duration, distress or severity of the disturbance -- have not been assessed and thus may not be fulfilled. Not claiming to diagnose a psychological disorder, weaker measures such as screening tools are sufficient to assess EBD (e.g. the Youth Self Report; YSR, Achenbach, 1991). Using screening tools reduces costs and efforts of the data acquisition. Data from a large number of individuals can be collected in a short time frame. Also, community-based samples may be more willing to complete an anonymous screening questionnaire than to participate in an extensive clinical interview.

A psychological disorder can be defined as a pattern of internalizing and/or externalizing problems that impact the individual's life in multiple areas. Usually it is associated with significant distress in multiple life domains (American Psychiatric Association, 2013). A psychological disorder is diagnosed when several diagnostic criteria are fulfilled. Thus, an extensive multi-modal assessment employing multi methods, multi levels, and multi informants (Döpfner, Lehmkuhl, Heubrock, & Petermann, 2000; Essau, Conradt, & Reiss, 2004) is required. In addition to screening questionnaires, comprehensive clinical interviews (e.g., Diagnostisches Interview bei Psychischen Störungen; DIPS, Schneider & Margraf, 2006), and behavior observations are utilized.

2.2 Objectives of the Present Thesis

EBD are a common phenomenon among adolescents. Young people may show antisocial, aggressive, and disruptive behaviors; they may be socially rejected, isolated, withdrawn, anxious, and depressed; or they may exhibit both extremes of withdrawal and aggression (Kauffman, 2005). According to Remschmidt (1988) these kinds of disturbances are “[...] a state of arbitrarily disturbed life functions, which exhibits a temporal dimension through its onset, course, and as the case may be also its termination and which drastically hinders a child or adolescent from actively taking part in and coping with aspects of life which are typical for his/her age group” (p. 146). Coping with age-associated developmental tasks and transitions represents an important aspect of adolescent development (Havighurst, 1948). However, in line with Remschmidt’s statement (1988) research indicates that internalizing and externalizing problems are associated with failure in attaining important developmental milestones (e.g., Oland & Shaw, 2005). For example, adolescents with internalizing problems have been found to have difficulties forming healthy, social relationships with others whereas adolescents with rather externalizing problems are reported to have troubles attaining the developmental tasks of realistic self-evaluation and self-reflection (Oland & Shaw, 2005). In sum, internalizing and externalizing problems seem to be a risk factor for failing to attain the developmental tasks of ones’ age group.

Although EBD seem to play an important role in adolescents’ attainment of developmental tasks, they are not taken into account in most research on developmental regulation. Also, research in this context has often not included the whole range of developmental tasks of adolescence but rather focused on the attainment of single tasks. Even though adolescents with EBD are either schooled in regular or in special schools and may therefore be exposed to different environments and influences, school type differences have been left out of research on developmental regulation of adolescents with EBD. Moreover, no research has so far investigated why adolescents with EBD show greater failure in attaining developmental tasks of their age group than adolescents without EBD.

Aiming to fill this rather large gap of research the present thesis examines the perceived attainment of developmental tasks of adolescents with EBD while taking different school types into account. Further, the present thesis also focuses on developmental expectancies and on processes of goal striving which have been found to impact goal attainment (e.g., Crockett & Beal, 2012; Määttä, Staatin, & Nurmi, 2002). Both factors may differ between adolescents with and without EBD attending different school types and thus may lead to systematic differences in their attainment of developmental tasks.

3. Theory

3.1 Adolescents With EBD

Adolescents with EBD are a heterogeneous group with a broad range of issues that are unique to each individual. However, there are some key characteristics that these individuals share. The following section will give a short overview of the characteristics, prevalence, and causes of EBD. For further detailed information see Kauffman (2005), and Myschker and Stein (2014).

Characteristics

EBD include a broad and heterogeneous range of problem behaviors. They can be largely summarized by two multivariate dimensions, often termed externalizing and internalizing (Myschker & Stein, 2014; see 2.1). Both types of problem behaviors seriously affect the life functioning and individual development. Research has shown high comorbidity rates of internalizing and externalizing behavior problems (Ihle & Esser, 2002).

Besides their problematic behaviors, adolescents with EBD show deficits in several life domains. Study results have indicated that adolescents with EBD exhibit poorer academic performances and more learning disabilities relative to their same-aged undisturbed peers (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). The majority of studies on academic performance showed that students with EBD perform on average one to two years below grade level (e.g., Trout, Nordness, Pierce, & Epstein, 2003). Their academic difficulties emerge at an early age and are rather persistent (Wagner, 1995). They tend to show low reading and mathematics skills, low graduation rates, high rates of grade retention, and low rates of postsecondary education (Kauffman, 2005; McLeod & Kaiser, 2004; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Regarding their social skills, adolescents with EBD are often characterized by lower social competences than adolescents without EBD (Wagner et al., 2003). For example, results from the National Longitudinal Transition Study (NLTS-2; Wagner et al., 2003) showed that 40% of students with EBD were rated by their parents as having poor social skills and 36% of students with EBD scored low on the classroom social behavior scale. Also, results from both the Special Education Elementary Longitudinal Study (SEELS) and the NLTS-2 indicate that students with EBD are distinguished by a low functioning on overall social skills as well as in the subareas of self-control, assertion, and cooperation skills (Wagner et al., 2005). In line with these findings, adolescents with EBD report more social problems and rejection (Kauffman, 2005). Risk factors for the development and maintenance of internalizing and externalizing problems are: a low socioeconomic status

(SES; Bele, Bodhare, Valsangkar, & Saraf, 2013; van Oort, van der Ende, Wadsworth, Verhulst, & Achenbach, 2011; Wagner & Cameto, 2004), a minority ethnic background (Hölling, Erhart, Ravens-Sieberer, & Schlack, 2007), low parental support, a broken family environment, and a conflictual family climate (Davis & Vander Stoep, 1997; Sheeber, Hops, Alpert, Davis, & Andrews, 1997; Wagner et al., 2005). Families of adolescents with internalizing and externalizing symptoms are frequently characterized by: high interparental conflict (Katz & Gottman, 1993), parental hostility, rejection, and a harsh, inconsistent parenting style (Keiley, Lofthouse, Bates, Dodge & Pettit, 2003; Kim, Ge, Brody, Conger, Gibbons, & Simons, 2003).

Prevalence

EBD are a common phenomenon among adolescents. A German nationwide survey on health in children and adolescents assessed EBD using parental questionnaire data. The prevalence for emotional disturbances was 9.2% and 14.8% for behavioral disturbances (Hölling et al., 2007). Ziegert, Neuss, Herpertz-Dahlmann, and Kruse (2002) evaluated EBD in German adolescents aged 11 to 18 using the YSR. The authors reported a prevalence rate of almost 16% in boys and 9% in girls. The meta-analysis of Barkmann and Schulte-Markwort (2012) revealed a prevalence rate of approximately 17% for emotional and behavioral disorders in German adolescents. Preponderantly, research results indicate that more than three-fourths of adolescents with emotional and behavioral disorders are male (Davis & Vander Stoep, 1997; Wagner & Cameto, 2004). When analyzing internalizing and externalizing symptoms separately, higher prevalence rates of internalizing symptoms are reported for girls while more externalizing symptoms are found in boys (e.g., Leadbeater, Kuperminc, Blatt, & Hertzog 1999; Ziegert et al., 2002). The assessment of intra-individual changes demonstrates low to moderate levels of stability in both behavioral problems (Ihle & Esser, 2002; Leadbeater et al., 1999).

Causes

Attempting to explain the risk factors for internalizing and externalizing problem behaviors, numerous theories and conceptual models have been established. Child, environmental, family, and genetic factors have been shown to be associated with the development and maintenance of those problematic behaviors (see Tables 1 and 2; Oland & Shaw, 2005). For more detailed information see Kauffman (2005).

Table 1. *Child Factors Associated With Internalizing and Externalizing Symptoms (based on Oland & Shaw, 2005, p. 251)*

Internalizing	Externalizing
<i>Similar factors</i>	
<ul style="list-style-type: none"> • Early temperamental traits of difficultness and irritability • General negative emotionality • Negative attributional and attentional biases • General psychosocial difficulties, poorer problem solving skills in academic and interpersonal functioning 	<ul style="list-style-type: none"> • Early temperamental traits of difficultness and irritability • General negative emotionality • Hostile attributional and attentional biases • Deficient social skills and social-cognitive processes, poorer social problem solving skills
<i>Differentiating factors</i>	
<ul style="list-style-type: none"> • Temperamental rigidity • Behavioral inhibition • Negative self-evaluation and self-schemas • Low self-esteem • Neuroticism • Increased somatic complaints 	<ul style="list-style-type: none"> • Temperamental resistance to control • Lack of inhibitory control, impulsivity, under controlled behavior • Poor emotion regulation, poor executive control, infant noncompliance • Lack of empathy and guilt • High activity level • High sensation seeking, fearlessness, and callous-unemotional traits • Attention deficits

Table 2. *Family and Environmental Risk Factors Associated With Internalizing and Externalizing Symptoms (based on Oland & Shaw, 2005, p. 250)*

Risk factors	Internalizing	Externalizing
<i>Family risk factors</i>	<ul style="list-style-type: none"> • Interparental conflict • Maternal depression • General parental psychopathology • Parental hostility and harsh discipline • Over involved parenting and high parental control 	<ul style="list-style-type: none"> • Interparental conflict • Maternal depression • Parental antisocial disorder • Parental hostility and rejection, harsh discipline and parental punitiveness • Low parental control, supervision, consistency, monitoring, responsiveness • Intrusive parenting • Family problems
<i>Environmental risk factors</i>	<ul style="list-style-type: none"> • Stressful life events • Poverty • Peer rejection and neglect 	<ul style="list-style-type: none"> • Negative life events • Poverty • Peer rejection • Neighborhood violence

3.2 Schooling of Adolescents With EBD

In line with other European countries such as Belgium or France, Germany has a tracked school system. Having finished elementary school, students are separated into three different types of secondary school depending on their academic performances: (1) the *Gymnasium* offers an eight or nine year pre-academic course. It is the most demanding and most prestigious track. Graduating from the *Gymnasium* qualifies for all post-secondary and tertiary institutions; (2) the *Realschule* lasts six years and leads to an intermediate secondary qualification; (3) the *Hauptschule* takes five years and is the least demanding and least prestigious track. Although it is possible to switch tracks, the track entered after primary school usually determines the following educational career (Ertl & Phillips, 2000). In addition to the three regular school tracks, there are seven different special school types varying in distinguished special educational needs (SEN). Those distinguished SEN are: sight, learning, emotional and social development, speech, mental development, hearing, physical and motor development (Bos, Müller, & Stubbe, 2010). In Germany, special education placements and services are part of a continuum increasing in restrictiveness. Regular classrooms and special schools represent both ends of that continuum. The ambition to educate children with disabilities in regular classrooms has increased in Germany after having signed the Salamanca Statement (UNESCO, 1994) which declares that all children, including children with disabilities, have the right to express their wishes with respect to education, and must have the opportunity to be educated in regular schools (UNESCO, 1994). In 2012, 494,700 (6.6%) German students were in need for special education and 355,139 (4.8%) attended schools for special education. Of those in need for special education 139,605 (28%) were schooled in regular schools (KMK, 2014). This number has doubled since 2003 where only 13% of SEN students attended regular schools (KMK, 2005).

Students with EBD challenge schools and teachers in many ways. Their intense educational needs often combined with disruptive behaviors make them one of the most difficult SEN groups to provide for within regular schools (Watling, 2004). Not surprisingly, they experience high rates of formal and informal exclusion from school (Watling, 2004). As Jull (2008, p. 13) emphasized “EBD is perhaps the only category of SEN that exposes a child to increased risk of exclusion as a function of the very SEN identified as requiring special provision in the first instance”. According to official statistics, in 2012 there were 70,534 German students categorized as having special needs in the field of EBD; 14.3% of all students with SEN, or 0.9% of the compulsory school-age population (KMK, 2014). Thus, comparing this number to the prevalence of emotional and behavioral disorders among

German adolescents (17%, Barkmann & Schulte-Markwort, 2012), the majority of students with EBD may not be (yet) categorized as having a SEN. Next to learning disabilities and mental retardation, EBD is the third largest of all SEN categories in Germany and has increased in its size over the last couple of years. The number of students with EBD has risen by over 50% since 2006 (32,603 vs. 70,534, KMK, 2008; KMK, 2014). In 2012, about 47% of students with EBD attended regular schools while 53% were schooled in separate special schools (KMK; 2014). As the efforts to increase and strengthen inclusive education, the number of students with EBD being schooled in regular schools has almost doubled since 2003 where only 28% of EBD students attended regular schools and 72% were served in special schools (KMK, 2005). Similar to students attending low-track schools, adolescents from special schools for students with EBD have the opportunity to graduate with a low school track diploma.

The student's placement is decided on by the educational authority. Their choice is based on a recommendation given by a special education teacher who had tested the student's need for special education. In Germany, neither federal guidance nor legislative regulations of the 16 federal German states provide a sufficient definition of EBD, how it has to be diagnosed (Willmann, 2013), and there are no predefined cut-offs in standardized measures assessing EBD that determine the given recommendation for attending special schools (KMK, 2000).

3.3 Developmental Regulation

Development can be seen as the result of an interaction between an individual's active pursuit of his/her own development (Heckhausen, Wrosch, & Schulz, 2010), biological changes, and social conditions. On the one hand, individuals are (co-)producers of their own development as they select, construct, and adapt developmental goals (e.g., Heckhausen et al., 2010). On the other hand, the pursuit of personal developmental goals and processes of goal engagement are embedded in age-graded normative expectations and social constraints. Social age-systems shape the individual life-course guiding people through social roles, positions, and obligations (Nurmi, 1991). Thus, developmental regulation is defined as an individual's active effort and usage of strategies to determine and realize personal goals (Bandura, 2000; Nurmi & Salmeal-Aro, 2002).

The developmental regulation of adolescents with EBD has not been empirically examined so far. However, adolescents with EBD are characterized by numerous unfavorable internal and external conditions that may impede their goal striving and goal attainment. Thus, they might be at risk to exhibit a maladaptive developmental regulation and thereby an adverse development. Knowledge about possible deficits or difficulties in goal attainment and factors that might cause those deficits is especially important as it helps to understand why some adolescents handle their developmental regulation competently and adapt positively to role changes and others do not. It might also be beneficial when conceptualizing interventions to support adolescents with EBD in their developmental regulation. The following section will first introduce the concept of developmental goals before regarding the attainment of those goals in adolescents with EBD attending different school types.

3.3.1 Developmental Goals

Havighurst (1948) defined the active pursuit of one's own development as solving age-associated developmental tasks that are embedded in a given society and cultural context. He described a developmental task as "[...] a task that arises at or about a certain period in the life of an individual, successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulties with later tasks" (Havighurst, 1948, p. 2). According to Havighurst (1948), the tasks of one present stage of life must be accomplished successfully before entering the next stage. As developmental tasks change throughout the life-course (Salmela-Aro, Aunola, & Nurmi, 2007) development can be seen as a life-long coping process in which individuals need to actively integrate and deal with demands from different life domains. One stage in life

where individuals are confronted with several major changes and demands is adolescence. Havighurst (1948) proposed eight developmental tasks individuals have to deal with during that stage: acceptance of physical maturity, attainment of a feminine / masculine social role, achievement of independence from parents, preparation of a future family life, achievement of sociopolitical awareness, acquirement of values and an ethical system as a guide to behavior, preparation for an occupation, as well as attainment of new and more mature relations with age-mates of both sexes. Seiffge Krenke and Gelhaar (2008) as well as Nurmi (1991) demonstrated that these tasks are still important and salient goals of today's adolescents even though some of them were modified and adjusted over the years. For example, "the attainment of new and mature relations with age-mates of both sexes" was replaced by "integration into a peer group" and "attainment of close friendships" while "preparation of a future family life" was replaced by "attainment of romantic relationships" (Seiffge-Krenke, Silbereisen, & Otembra, 1984).

Developmental tasks and developmental goals can be seen as intertwined. Kracke and Heckhausen (2008) stated that developmental tasks turn into developmental goals when individuals regard them as personally significant. While developmental tasks represent a link between individual goals and societal demands (Fend, 2000), developmental goals are individual desired future outcomes (Kracke & Heckhausen, 2008). Therefore, developmental goals can be conceptualized as "organizers" of developmental regulation that motivate individuals to actively engage in shaping their own life course and development (Heckhausen et al., 2010). These goals give the individual life-course a direction and can be seen as a central element for the individual life-planning (Nurmi, 1993).

Several individual, familial, and external factors have been found to be associated with differences in adolescents' achievement of developmental tasks. For example, research results point out that females usually show a higher overall level of accomplishment (e.g., Seiffge-Krenke, Kiuru, & Nurmi, 2010). This result is often explained by their earlier physical maturation. Various researchers reported that the levels of maturity in adolescents are associated with their striving of developmental goals (Dekovic, Noom, & Meeus, 1997; Seiffge-Krenke et al., 2010). Also, parenting styles (Steinberg, 2001), the SES and the ethnic background have been found to be related to the attainment of developmental goals (Seiffge-Krenke et al., 2010).

3.3.1.1 Attainment of Developmental Goals in Adolescents With EBD

Davis (2003; Davis & Vander Stoep, 1997) postulated that adolescents with EBD would lag behind their non-disturbed peers in several aspects of psychosocial development, being less prepared to meet the challenges and responsibilities of adulthood. However, only little research took a closer look at the attainment of developmental goals in adolescents with EBD. Seiffge-Krenke et al. (2010) conducted a longitudinal analysis regarding the association of behavioral problems and the attainment of developmental tasks. They reported a negative relationship between the overall attainment of developmental tasks and behavioral problems. Other researchers only focused on the attainment of single tasks. The meta-analysis of Reid et al. (2004) emphasized the poor academic performances of adolescents with EBD with moderate to large between-group differences. Adolescents with EBD do not only show, on average, poorer academic skills than adolescents without EBD, they also exhibit higher school-absenteeism, higher drop-out rates, and higher rates of class repetition (e.g., Kaufmann, 2001; Wagner et al., 2005). Having a hard time to build and maintain positive social relationships, adolescents with EBD often encounter difficulties forming close friendships and integrating into peer groups (Goetze, 2008). Behavioral problems have been found to be the best predictor for social rejection (Baydik & Bakkaloglu, 2009). Despite an elevated risk for social rejection, most adolescents with EBD have at least some friends (e.g., Gordon, Lahey, Kawai, Loeber, Stouthamer-Loeber, & Farrington, 2004). However, they are usually attracted to adolescents that are similar to themselves so that their friends are also characterized by externalizing or internalizing problem behavior (e.g., Gordon et al., 2004; Poulin, Hubbard, Coie, Dodge, & Schwartz, 1997). As for the attainment of sociopolitical awareness, researchers have observed an inverse relationship between externalizing problems and empathy as well as between externalizing problems and prosocial behavior (Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000; Kokko, Tremblay, Lacourse, Nagin, & Vitaro, 2006). Concerning internalizing problems, positive as well as negative associations with empathy and prosocial behavior were reported (Solantaus-Simula, Punamäki, & Beardslee, 2002). With regard to romantic relationships, some researchers observed that delinquent adolescents and those with behavior problems show an early onset of as well as an over-involvement in dating behavior (Cui, Ueno, Fincham, Donnellan, & Wickrama, 2012; Zimmer-Gembeck, Siebenbrunner, & Collins, 2001) whereas others did not find such an association (van Dulmen et al., 2007). Regarding the attainment of autonomy from parents, a positive association of externalizing and internalizing problem behavior with early behavioral autonomy has been reported (e.g., Haase, Tomasik, & Silbereisen, 2008). Some research

results indicate that externalizing and particularly internalizing problem behaviors are related to a lower body image, especially in girls (e.g., Bogt, van Dorsselaer, Monshouwer, Verdurmen, Engels, & Vollebergh, 2006).

3.3.1.2 Different School Types and the Attainment of Developmental Goals

Adolescents with EBD attend either a regular school or a special school for students with EBD. On the one hand, different school types might lead to systematic differences between the developmental attainment of adolescents with and without EBD. As special schools are distinguished by smaller class sizes, support from paraprofessional educators and social workers, modified curricula, and a stronger classroom management (Lane, Wehby, Little, & Cooley, 2005a), one would expect special schools to be better equipped to meet the needs of their students. Higher levels of individualization should result in better academic and social progress compared to students with EBD in regular school settings (Lane et al., 2005a). On the other hand, possible selection effects also need to be considered as students with most severe behavioral problems may be more likely to attend special schools. In addition, an accumulation of students with EBD might have a negative impact on the individual students' academic and social progress. Moreover, schools for special education are often marginalized institutions (Bos et al., 2010) whose students frequently suffer from stigmatization, labeling, and social isolation (e.g. Schumann, 2008). These negative experiences might undermine the positive effects special schools possibly have on their students' progress.

Unfortunately, current empirical research does not allow drawing a conclusion about the effects of inclusive education on the attainment of developmental tasks of adolescents with EBD. Also, the few available studies that meet methodological standards have only focused on group differences in academic performances and on aspects of social integration. Regarding academic achievement, available research results do not support the assumption that students with EBD show better progress in settings adapted to meet their specific needs than in regular schools. Reid et al. (2004) reported that across all educational placements, students with EBD were characterized by poorer academic performances. Lane et al. (2005a) compared the academic achievement of students with EBD in self-contained schools and self-contained classrooms. Across both settings, students showed extensive academic deficits. Nevertheless, students in self-contained schools (the more restricted setting) had a lower academic achievement than students in self-contained classrooms. In a second study, Lane and colleagues (2005b) examined the progress of students with emotional and behavioral disorders in self-contained classrooms and self-contained schools. The academic

improvement of both groups was limited. No significant differences between groups were found, except on written expression. Students in self-contained schools showed lower progress in measures of writing compared to students in self-contained classes; however, they had lower numbers of grade retentions. Most other studies that compared the academic achievement of students with SEN observed that regularly schooled students receiving special education show more progress in their academic performance than students with special needs attending a special school (e.g., Bless, 1995; Karsten, Peetsma, Roeleveld, & Vergeer, 2001; Kocaj, Kuhl, Kroth, Pant, & Stanat, 2014). However, those studies do not provide separate results for students with EBD.

With regard to peer group integration, only few studies reported that students with SEN attending regular schools do not have lower social positions than their classmates without SEN (Bear, Juvonen, & McInerney, 1993). On the contrary, it has mostly been registered that in particular regularly schooled students with EBD are less accepted and often even rejected by peers without EBD (e.g., Goetze, 2008; Mand, 2007; Monchy, Pijl, & Zandberg, 2004). In studies from Wocken (1993) and Preuss-Lausitz (1997), undisturbed students reported that students with SEN are less popular than students without SEN. Students with EBD were the least popular. The particular rejection of students with EBD was found in special schools as well as in regular schools with and without inclusive classrooms (Wocken, 1993; Preuss-Lausitz, 1997). A longitudinal study also showed that students with EBD have difficulties in inclusive classes. About one-third of them were labelled as outsiders by their classmates (Preuss-Lausitz & Textor, 2006).

3.4. Why Do Adolescents with EBD and Special School Students Show Lower Levels of Goal Attainment?

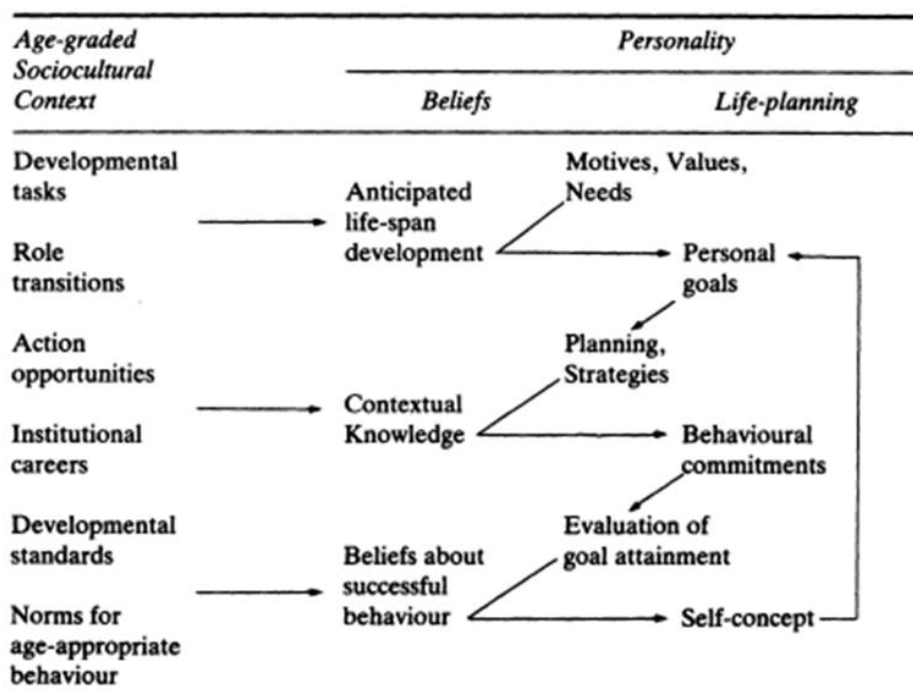
As has been argued in the previous section, adolescents with EBD and students from special schools might show poorer developmental attainment in the academic, social, and behavioral field than adolescents without EBD or regularly schooled students. Why do those adolescents have more difficulties to successfully handle and adapt to the changes and demands of adolescence? This question has not been in the focus of research so far. In order to understand why some adolescents manage to handle their developmental regulation competently, whereas others do not, research on possible explanations of unsuccessful developmental attainment needs to be conducted. Thus, the following section will take a closer look at two factors that might be associated with the poorer developmental attainment

of adolescents with EBD and special school students: developmental expectations and processes of goal striving.

3.4.1 Developmental Expectancies and the Attainment of Developmental Goals

Expectations about role transitions and developmental goals play an important role in adolescents' developmental regulation as it is assumed that they significantly influence human behavior in different contexts (Bandura, 1986). Based on cultural beliefs about age-graded development and beliefs of themselves as actors in different situations, adolescents develop expectations of what their developmental goals will be, when they should be attained, and if they are able to attain them (Crockett & Beal, 2012). These beliefs and expectations provide adolescents with a roadmap for their life-course (Freund, 2003). They enable them to anticipate, structure, and control their own development in an age-graded social context (Freund, 2003; Nurmi, 1993). Nurmi (1993) established an interactional model for adolescents' development that underlines the importance of beliefs about age-graded development and successful age-appropriate behavior (Figure 1). The author suggests that these beliefs play a crucial role in 'mediating' effects the sociocultural context has on processes of individual life-planning such as goal setting, planning, and evaluation of goal attainment (Nurmi, 1993)

Figure 1: *Adolescent Personality Development in an Age-graded Sociocultural Context* (Nurmi, 1993, p. 174)



Support for the influential role of individuals' expectations on later attainment and development has been reported in several studies (Beal & Crockett, 2010; Crockett & Beal, 2012; Hogan, 1986; Lichter, Batson, & Brown, 2004; Mello, 2008). For example, adolescents' educational and occupational expectations predict their future educational and occupational attainment (Beal & Crockett, 2010). Crockett and Beal (2012) reported an association between adolescents' anticipated timing of adulthood role transitions and the actual timing of those transitions in early adulthood. Hogan's (1986) longitudinal analysis of the High School and Beyond Student Survey also underlined the predictive value of adolescents' expectancies on their future family formation. In addition, Lichter et al. (2004) found that women desiring to marry were four times more likely to be married four years later than women not expressing such a desire.

Developmental Timetables

Expectations about the timing of transitional events reveal information about the developmental timetable adolescent have in mind for themselves. These developmental timetables illustrate how adolescents view their own development and its pacing (Feldman & Quatman, 1988). It has been reported that adolescents and their parents have similar views of the sequence in which the attainment of developmental tasks should happen (Dekovic, et al., 1997; Feldman & Quatman, 1988). However, in several domains of development, adolescents usually describe earlier timetables than their parents (Dekovic et al., 1997). Studies that examined adolescents' perceived order and timing of adulthood transition events report that those expectations are congruent with the pattern of the actual average timing of role transitions (Crockett & Bingham, 2000; Greene, Wheatley, & Aldava, 1992). Also, German data about the actual timing of role transitions correspond to the normative adulthood transition sequence reported by adolescents (e.g., Greene et al., 1992). In Germany, the mean age for leaving ones' parental home is around age 23.9 years for women and 25.1 years for men (Eurostat, 2009). Young adults attain material independence from their parents at age 19.7 years (non-college-bound youth) or respectively at age 24.6 years (college-bound youth) (Reitzle & Silbereisen, 1999). The mean age for marriage is 30.9 years for women and 33.6 years for men (Statistisches Bundesamt, 2015). German women are approximately 29.3 years old when they have their first child (Statistisches Bundesamt, 2015).

The expected and actual timing of transition events is influenced by various external and internal factors such as age (Barker & Galambos, 2005; Crockett & Beal, 2012; Dekovic et al., 1997), gender (Crockett & Beal, 2012; Dekovic et al., 1997), ethnical background (Feldman & Quatman, 1988), parental education (Crockett & Bingham, 2000), family

structure and family relationships (Crockett & Bingham, 2000; South, 2001), and optimism (McWhirter & McWhirter, 2008). For example, adolescents report somewhat different normative timetables for females and males with women expecting and being expected to marry and have children at a younger age than men (Crockett & Beal, 2012).

3.4.1.1 Developmental Expectancies in Adolescents With EBD

Little is known about how adolescents with EBD conceptualize the transition to adulthood and when they expect role transitions to occur. Most research has focused on actual adulthood outcomes of adolescents with EBD. These studies emphasize that adolescents and emerging adults with EBD and especially those having a diagnosed psychiatric disorder are distinguished by unfortunate outcomes in the social, academic, and occupational field compared to undisturbed adolescents or adolescents with other SEN (e.g., Wagner, D'Amico, Marder, Newman, & Blackorby, 1992; Newman et al., 2011). They are less likely to be enrolled in postsecondary education or employed, less likely to live independently from their parents, less likely to be married, but they are more likely to have gotten pregnant or to have impregnated someone else (Armstrong, Dedrick, & Greenbaum, 2003; Newman, et al., 2011; Vander Stoep, Beresford, Weiss, McKnight, Cauce, & Cohen, 2000).

Although some research exists on actual adult outcomes of adolescents with EBD, limited data is available on what these adolescents expect from adulthood. In a study not specific to EBD, Boxer, Goldstein, DeLorenzo, Savoy, and Mercado (2011) reported that internalizing and externalizing problems were inversely associated with academic aspirations and expectations. Also, positive expectations for the future have been found to be positively related to internal resources (self-worth and problem-solving skills) and to social support but negatively related to problem behavior and to negative peer influence (Dubow, Arnett, Smith, & Ippolito, 2001). Adolescents with higher initial problem behaviors also reported decreases in positive future expectations over time (Dubow et al., 2001). Other research results also suggest that adolescents low in impulse control and high in sensation seeking (i.e., those who are likely to show elevated levels of externalizing problem behavior) expect to attain tasks associated with future responsibilities (e.g., choosing a profession and taking care of school career) at a later age than their peers high in impulse control. However, they tend to have earlier timetables for tasks related to privileges of adulthood such as deciding on ones' curfew and setting up an independent life (Deković et al., 1997). Low self-control and delinquency have also been found to be related to negative expectations regarding educational achievement (Clinkinbeard, 2014).

3.4.1.2 Developmental Expectancies in Students from Different School Types

Little information on future expectancies of adolescents with EBD is available but even less information exists on how these expectancies might differ between school types. German data on post-school education and employment of former students from special schools in general suggests unfortunate outcomes for those students in the academic and occupational field. About 76% of German students from special schools for students with heterogeneous disabilities leave their school without a diploma compared to 8% of students from the regular low school track (Klemm, 2010). Those individuals only have a minimal chance to attain a vocational training or an occupation as only every sixth young German adult without a school diploma finished a vocational training (BIBB, 2011). However, no separate analyses are available for students with EBD from special schools.

The little data that is available on expectations of students from special schools does not differentiate between the various SEN schools. Also, they assess future plans rather than future expectations and mostly focus on the vocational field. Gaupp, Großkurth, and Lex (2008) compared future vocational plans of students from special schools in general to those of low track students. About 40% of special school graduates intended to participate in a vocational preparation program after graduation, i.e., to have the chance to examine ones abilities/strengths, to essay different occupations, and to be assisted in finding, applying to, and starting an occupation. Only 28% intended to commence a vocational apprenticeship. While 15% planned to continue their academic education, 14% had not decided on their future plans. In comparison, 0.4% of low track graduate students intended to participate in a vocational preparation program, 57% wanted to start a vocational apprenticeship, 30% planned to continue their academic education, and 6% did not know what they wanted to do after graduation (Gaupp et al., 2008). About 33% of special school graduate students and 22% of low track graduate students were still uncertain about their vocational aspirations. However, 13% of special school students and 24% of low track students reported not having (yet) a vocational aspiration at all (Gaupp et al., 2008). This might be explained by a larger number of low track graduate students planning to continue their education.

3.4.2 Processes of Goal Striving

Dealing with major life changes is a critical part of successful adolescent development. How individuals regulate their development and cope with developmental transitions has consequences on their well-being, health, career success, and longevity (e.g., Freund, 2008; Heckhausen et al., 2010). While some adolescents show extraordinary resilience when

confronted with developmental challenges, others develop long-term problems. Understanding how individuals “produce” their own development successfully can help to comprehend those differential developmental patterns. Thus, recent research on developmental regulation has increasingly focused on processes of goal striving. Over the last decades three major theories of developmental regulation have been proposed. All of them emphasize the active role individuals play in this context (Boerner & Joop, 2007; Brandstädter & Renner, 1990; Freund & Baltes, 2002; Haase, Heckhausen, & Wrosch, 2013; Heckhausen & Schulz, 1995). These theories suggest several different processes of developmental regulation that, on a meta-level, center around the two key processes of developmental regulation: goal engagement and goal disengagement (Boerner & Joop, 2007; Haase et al., 2013). When individuals are confronted with discrepancies between their present state and desired goals, they use regulatory strategies: they can either try to attain the goal by engaging with it or they can detach from the desired goal (that would be difficult or impossible to attain) by disengaging from it (Haase et al., 2013). Goal engagement represents a goal-striving phase aimed at proactively changing one’s environment and self when control opportunities are available. This process includes the focused investment of personal resources (e.g., energy and effort) in attaining the goal, the constant reinforcement of commitment to that goal and the employment of external help if needed (Heckhausen & Schulz, 1993). Goal engagement processes aim at reducing the discrepancy between desired and factual states. When goals seem unattainable reorientation processes need to be employed. These include goal disengagement and self-protection (Heckhausen & Schulz, 1993). Reorientation processes intend to change the self and one’s preferences, i.e. individual goals are adjusted to external conditions in order to minimize the significance of losses, to minimize the extent of discrepancies between desired and realized states, and to protect motivational resources. All three theories on developmental regulation assume that individuals adjust their strategies of developmental regulation to deal with age-dependent challenges and life changes. Also, they suppose that the use of developmental regulation strategies change throughout the life-span (Brandstädter & Renner, 1990; Freund & Baltes, 2002; Heckhausen & Schulz, 1995).

Processes of Goal Striving and Goal Attainment

Research results emphasize the importance of goal engagement for goal attainment especially when opportunities are constrained but goals are still attainable. Some studies reported overall positive associations between goal engagement and goal attainment (e.g., Määttä et al., 2002; Schindler & Tomasik, 2010; Wiese, Freund, & Baltes, 2000). For

example, young adults benefitted from goal engagement when they had to make important decisions concerning their career and romantic relationships (Schindler & Tomasik, 2010). Other studies found such associations only in subgroups or for some of the assessed goals (e.g., Haase, Heckhausen, & Köller, 2008; Heckhausen, Chang, Greenberger, & Chen, 2013). For example, Haase et al. (2008) showed that career-related goal engagement was important for attaining an apprenticeship, but only for girls who face restricted opportunities on the labor market.

It has also been demonstrated that goal disengagement may be adaptive and protective against negative affect and health problems when goals cannot be attained (e.g., Nurmi & Salmela-Aro, 2002; Wrosch & Heckhausen, 1999; Wrosch, Miller, Scheier, & Brun de Pontet, 2007). Wrosch, Scheier, Carver, and Schulz (2010) reviewed empirical evidence to support the notion that goal disengagement can be beneficial to psychological well-being. They concluded that the capacities to withdraw effort and to give up committing to unattainable goals are essential features of adaptive self-regulation as the ability to disengage from unattainable goals predicts well-being, lower levels of stress, and depression.

Factors Influencing Processes of Goal Engagement

Motivation theories suggest that individuals select and pursue goals that are personally desirable and attainable (Ajzen, 1991). Attainability specifies the extent to which a person perceives favorable or unfavorable conditions for the attainment of a certain goal, such as time, opportunity, and resources (Brunstein, 1993). The interaction of goal engagement and goal attainability has been found to predict progress in goal achievement and is related to subjective well-being (Brunstein, 1993). Lower levels of goal engagement are sufficient when opportunities to attain a certain goal are high. In this case, individuals with high levels of goal engagement do not differ in their goal attainment from individuals with low levels of goal engagement (e.g., Haase, et al., 2008). However, as opportunities to attain a goal have peaked and started to decline, higher levels of goal engagement are needed in order to guarantee the goal attainment (Heckhausen, et al. 2010). For example, Wrosch, Schulz, and Heckhausen (2002) showed that engaging in the enhancement of ones' health is most adaptive for individuals dealing with potential manageable health-related symptoms. Hall, Chipperfield, Heckhausen, and Perry (2010) reported in a study on seniors that goal engagement strategies directed towards improving ones' health were ineffective or even detrimental for individuals with chronic conditions and for seniors who were older than 80 years. Thus, goal engagement seems to be unbeneficial when opportunities to attain a desired goal are very low.

Next to attainability, internal and external factors also affect the employment of control strategies, and therefore the success in attaining various developmental goals (Massey, Gebhardt, & Garnevfski, 2008). While higher internal resources such as a positive outlook on life have been shown to be associated with a more successful goal-striving and goal attainment (e.g., Messersmith, & Schulenberg, 2010), unfortunate socioeconomic factors and internalizing symptoms have been found to negatively affect ones' goal striving (Dickson & McLeod, 2004; Massey et al., 2008).

3.4.2.1 Goal Striving in Adolescents With EBD Attending Different School Types

Unfortunately, EBD have not been considered in most studies on processes of goal striving. Neither have different school types been taken into account. In one of the few implemented studies, Connor-Smith and colleagues (2000) reported that adolescents' goal engagement was related to lower levels of internalizing and externalizing symptoms while adolescents' goal disengagement was associated with higher levels of internalizing and externalizing symptoms.

Some studies have also been conducted on personality and coping with changes and stress. Connor-Smith and Flachsbart (2007) focused on the Big Five personality traits in a meta-analysis of data from 165 samples. Their results suggest small to moderate relations between personality and engagement/disengagement coping strategies. Extraversion, openness to experience, and conscientiousness were associated with broad engagement coping strategies. Neuroticism was related to higher use of disengagement coping strategies (Connor-Smith & Flachsbart, 2007). Optimism has been found to be positively associated with broad measures of engagement coping strategies and negatively with broad measures of disengagement coping strategies (Solberg Nes & Segerstrom, 2006). Moreover, adaptive self-regulation, persistence, and self-efficacy have been shown to be important for processes of goal striving (e.g., Heckhausen & Schulz, 1995; Wrosch et al., 2010).

High levels of neuroticism, low levels of self-efficacy and low optimism are risk factors for the development and maintenance of internalizing problem behaviors whereas low levels of self-regulation, persistence, and conscientiousness are risk factors for externalizing behavior problems (Kauffman, 2005; Myschker & Stein, 2014). Thus, one could assume that adolescents with EBD might exhibit poorer or less efficient processes of goal striving than adolescents without EBD. Therefore, differences in goal striving processes might explain, at least partly, differences in goal attainment between adolescents with and without EBD.

3.5 Research Objectives

Research on developmental regulation of adolescents with EBD attending different school types is limited. However, as problem behaviors and/or unfavorable contextual factors may restrict their goal engagement and their chances of success, the attainment of developmental goals might be especially demanding for adolescents with EBD. Some adolescents with EBD are schooled in regular schools while others attend special schools. It was assumed that different school types might also be related to systematic differences between the goal attainment of adolescents with and without EBD. Thus, the first goal of the present thesis was to analyze differences in goal attainment of adolescents with and without EBD attending different school types. Knowledge about factors influencing the (un-) successful goal attainment is important in order to understand why some adolescents manage to successfully handle their developmental regulation and the transition to adulthood whereas others do not. Therefore, the second goal was to analyze two possible explanations of between-group differences in the attainment of developmental goals: expectations about the timing of developmental attainment and processes of goal-striving. Expectations have been found to play an important role in later attainment and development (e.g., Crockett & Beal, 2012). As adolescents with EBD and adolescents attending special schools have poorer outcomes with regard to their future educational, occupational, and social attainment (Klemm, 2010; Newman et al., 2011), one could expect that these negative future prospects may already be reflected in adolescents' expectations about future transitions to adulthood. More concretely, we expected adolescents with EBD and adolescents from special schools to report later expectations with regard to the timing of attaining developmental goals of adulthood than adolescents without EBD or adolescents attending regular schools. Also, research has shown that processes of goal-striving are closely related to success and failure in goal attainment (Heckhausen et al., 2010). Differences in those processes might explain differences in goal attainment between adolescents with and without EBD attending special or regular schools. On the one hand, we asked whether adolescents with EBD and students from special schools engage less or disengage more often from their goal attainment than adolescents without EBD and adolescents from regular schools. On the other hand, we asked whether their initial goal engagement has lower effects on progress in perceived goal attainment.

4. Empirical Studies

All three studies enclosed in the present thesis are based on data that were collected between January 2014 and June 2015. Thus, before presenting the three studies in detail, the employed sample and measures are outlined.

4.1. Sample

Data were gathered using two German regular low track schools and eight special schools for students with EBD. Larger numbers of special schools were needed due to their small sizes. Regular low track schools were chosen for comparison because students from both regular low track schools and special schools for students with EBD have the opportunity to graduate with a low school track diploma. All data were collected during class hours. It took students 25 minutes to a whole school lesson to complete the questionnaire. A parallel version of the questionnaire was also given out to the students' parents. However, due to a minimal response rate the parental data could not be used in the present thesis.

Prior to the main data collection the optimal length and level of difficulty of the questionnaire was pretested employing a sample of 6th grade special school students. After the successful implementation of the pretest, the intended study was inspected and approved by the ethics committee of the Psychology Department of the Philipps University in Marburg. The first wave of data collection took place between January and June 2014 while the second wave was realized one year later between January and June 2015. Before each implementation, adolescents' parents were informed about the upcoming survey and had the possibility to deny their child's participation. All students were informed about the voluntariness and anonymity of their participation. They were also able to quit the survey at any time.

All sixth to tenth graders (aged 11 to 18 years) were included. At wave one (T_1) 555 adolescents from grade six to ten (68% male) participated in the study. About 33.9% of the students did not participate, mostly due to school-absenteeism during data collection, lack of parental permission or of own interest to participate. The T_1 sample consisted of 261 adolescents from special schools and of 294 students attending regular schools. Based on recommendations given in the Youth-Self-Report (YSR) manual, the participants belonged to the EBD-subsample if their internalizing and/or externalizing *T*-score was at least 63 (Döpfner, Berner, & Lehmkuhl, 1994). Therefore, 153 students from special schools and 116 students from regular schools belonged to the EBD subsample. Respectively, 108 students

from special schools and 178 regular schooled students were characterized as not fulfilling the YSR-criteria of EBD.

While 455 students from grade six to nine (70% male) participated in the survey at T₁, 257 of them (66% male) took part at the one year-follow-up (T₂) (response rate: 56%; special school: 51%, regular school: 62%). Of the T₂ sample, 124 adolescents attended special schools (72 with EBD and 52 without EBD) and 133 were from regular schools (55 with EBD and 78 without EBD). The high prevalence of school-absenteeism at low-track and special schools (e.g., Gängler & Wiere, 2005; Wagner, Dunkake, & Weiß, 2004) might explain, in part, the large number of students not having participated in the longitudinal analysis. Dropout analysis showed that the participants of the longitudinal study were younger ($M = 13.82$ years vs. $M = 14.30$ years; $F(1,453) = 15.19$, $p \leq .001$, $\eta^2 = .03$) than those who dropped out of the study and reported higher levels of goal engagement regarding the achievement of academic competence at T₁ ($M = 32.92$ vs. $M = 34.67$, $F(1,425) = 7.08$, $p < .01$, $\eta^2 = .02$). This finding is not surprising since adolescents engaging little in the attainment of academic competence are at risk for not meeting scholastic performance goals and dropping out of school. Table 3 summarizes the socio-demographic characteristics of the original sample.

Table 3. *Characteristics of the Sample (at Wave 1).*

Group	Students with EBD from special schools	Students without EBD from special schools	Students with EBD from regular schools	Students without EBD from regular schools
<i>N</i>	153	108	116	178
Gender (% male)	79.7% ^{ab}	87% ^{cd}	50.9% ^{ac}	56.7% ^{bd}
Mean Age (<i>SD</i>)	14.01 (1.48) ^{ab}	14.09 (1.57) ^{cd}	14.4 (1.57) ^{ac}	14.89 (1.38) ^{bd}
Habitation (% not living with both parents)	69.9% ^{ab}	53.9% ^{cd}	43.1% ^{ac}	43.3% ^{bd}
% ethnic minority	30.1% ^b	28.7% ^d	41.4%	41.4% ^{bd}
Parental education*				
≤ lowest track	12.4%	13.9%	23.2%	18.0%
Middle track	14.4%	12.0%	20.7%	23.6%
Highest track	17.6%	24.5%	14.5%	14.1%

Note: EBD = emotional and behavioral disturbances, *does not add up to 100% due to a large number of students not having provided information on this variable, ^{abcd} Groups with identical superscripts differ significantly, $p < 0.01$

4.2 Measures

Goal attainment (T_1 & T_2). At both waves, the perceived attainment of developmental tasks was measured with a modified version of the Developmental Task Questionnaire (DTQ; Pinquart & Pfeiffer, 2014). Using single items, the perceived attainment of 12 developmental tasks of adolescence was assessed: peer group integration, acceptance of physical maturity, identity development, autonomy from parents, academic achievement, career choice, gaining occupational competence, development of realistic self-perception, romantic relationships, close friendships, gender role awareness, and socio-political awareness. The adolescents provided information on their perceived attainment of each developmental task on a 4-point Likert-type scale: “Have you already attained this goal?” (1 = no, 2 = rather no than yes, 3 = rather yes than no, and 4 = yes). Additional questions were asked to objectify the results and to support the validity of the measurement. Participants indicated whether they were in a romantic relationship at present (1 = no vs. 2 = yes), and whether they currently belonged to a peer group (1 = no vs. 2 = yes). Adolescents reported a higher attainment of the task “development of a romantic relationship” ($M = 3.83$ vs. $M = 2.46$; $F(1,545) = 202.24$, $p \leq .001$, $\eta_p^2 = .27$) respectively “peer group integration” ($M = 3.65$ vs. $M = 2.23$; $F(1,539) = 377.58$, $p \leq .001$, $\eta_p^2 = .41$) if they were currently in a romantic relationship respectively belonged to a peer group at present.

Adulthood timetables (T_1). Based on Crockett and Beal (2012) an adulthood timetable questionnaire was developed to assess adolescents’ expectations about the timing of adulthood transition events. Participating adolescents were asked at what age they assumed to attain the following transition events of emerging adulthood: moving out of their parents’ home, successfully finishing postsecondary education, obtaining a full-time employment, getting married, and becoming parents (“At what age do you expect to...?”). If they expected to not experience the described event, they were supposed to cross out the answer space. Developmental tasks of emerging adulthood were chosen in order to be able to examine expectations about transition events that (almost) no participant had attained yet. Prospective expectancies about developmental tasks of adolescence could not be assessed, since too many participants had already attained several of those tasks.

Goal striving processes (T_1). The adapted version of the Optimization through Primary and Secondary Control (OPS) scales (Heckhausen, Schulz, & Wrosch, 1998) was used to measure adolescents’ goal-striving processes for two developmental goals: academic achievement and career choice. Goal engagement and goal disengagement were separately

assessed for both goals. The goal engagement scale comprised 9 items, whereas the goal disengagement scale consisted of 6 items. All items were answered on 5-point Likert-type scales from '1 = definitely not true' to '5 = exactly true'. Sample items were "I make a big effort in order to attain this goal" (goal engagement) and "If I do not attain this goal, I postpone it" (goal disengagement). For each scale, mean scores were computed. Cronbach's alpha for goal engagement was .81 (academic competence) and .90 (career choice) and for goal disengagement it was .66 (academic competence) and .71 (career choice).

Emotional and behavioral disturbances (T_1 & T_2). EBD were assessed using the YSR (Achenbach, 1991), a self-report instrument for adolescents aged 11-18 years that measures both internalizing and externalizing problem behavior. Items were answered on a 3-point Likert-type scale (1 = not true, 2 = somewhat or sometimes true and 3 = often or very often true). In the present studies only 61 items were used that compose the internalizing and externalizing problem scales. Cronbach's alpha at T_1 was .92 (internalizing behavior) and .88 (externalizing behavior). At T_2 Cronbach's alpha was .92 (internalizing behavior) and .89 (externalizing behavior).

Background variable (T_1 & T_2)s. Socio-demographic characteristics were assessed using single-item indicators: age (in years), gender, school type (1 = special school vs. 2 = regular school), habitation (1 = living with both parents vs. 2 = not living with both parents), ethnic background (the respondent himself/herself or at least one of his/her parents were born in a country other than Germany; 1 = yes vs. 2 = no), and parents' highest educational attainment (1 \leq lowest school track, 2 = middle school track, 3 \geq highest school track). A large number of participants did not provide information on their parental education (wave 1: 40% and wave 2: 48%). Therefore, this variable was not used in further analyses.

4.3 Summary of the Studies

The following section summarizes the three studies that are included in the present thesis.

4.3.1 Summary of Study I

Margraf, H., & Pinquart, M. (2015). Attainment of developmental tasks in emotionally and behaviorally disturbed adolescents across regular vs. special schools: a four-group comparison. *European Journal of Special Needs Education*, 30(3), 351-366.

Objectives of Study I. In Study I, a cross-sectional comparison of the perceived attainment of developmental tasks between adolescents with and without EBD attending special or regular schools was carried out. No directed hypotheses could be stated regarding the question whether the perceived attainment of developmental tasks varies by school type. However, based on previous research results (see 2.3.1.1) we expected that adolescents with EBD compared to adolescents without EBD were less progressed in their perceived attainment of academic achievement and peer relationships but more progressed in the accomplishment of tasks that include autonomy from parents and their dating behavior. In line with these expectations, we assumed that adolescents with EBD belonged less frequently to a peer group, but were more frequently involved in a romantic relationship at present. Finally, an interaction effect of school type and EBD status on the attainment of developmental tasks of adolescence was anticipated. As adolescents with EBD attending regular schools are often outsiders in their classes (Mand, 2007) it was expected that those adolescents were less advanced in their perceived attainment of peer group integration and also belonged to a peer group less frequently than regularly schooled students without EBD and students from special schools.

Results. Ordinal logistic regression analyses were computed. Odds ratios are displayed in Table 4. Adolescents from special schools reported a lower perceived attainment with regard to socio-political awareness than adolescents from regular schools. Differences between students with and without EBD were found for seven of the 12 developmental tasks. They especially reported lower attainments of tasks that indicate responsibilities of adulthood, i.e. gaining occupational competence and sociopolitical awareness, and choosing a future profession. Also, they reported lower levels of attainment in the social (integration into a peer group and building close friendships) and academic field. Their lower perceived attainment of body acceptance might be related to their higher somatic complaints. Interaction effects between EBD status and school type were found for career choice and close friendships.

Adolescents without EBD attending regular schools reported the highest status of having a close friend and the highest status of career choice.

Predictors of currently belonging to a peer group and having a romantic relationship were tested using binary logistic regression analysis (Table 4). The odds of belonging to a peer group at present were higher for adolescents from regular schools compared to adolescents from special schools. Also, regularly schooled adolescents without EBD were more likely to currently belong to a peer group than special school students with and without EBD. But, adolescents with EBD were more likely to be in a romantic relationship at present than adolescents without EBD.

Discussion. Results of study I show that the compared school types only play a subordinate role with regard to adolescents' perceived developmental status. However, adolescents with EBD lagged behind their peers without EBD in numerous aspects of psychosocial development. Overall, the present findings indicate that adolescents with EBD are distinguished by poor perceived attainments in the academic, social, and occupational field. They seem to be less prepared to meet the challenges and responsibilities of adulthood (Davis & Vander Stoep, 1997).

Revealed interaction effects suggest that regularly schooled adolescents without EBD are the group with the most fortunate outcomes reporting the highest levels of attainment in the occupational (career choice) and social field (development of close friendships and currently belonging to a peer group). The results did not support the idea that students with EBD from regular schools report the lowest success with belonging to a peer group. However, as general peer-group membership was assessed, rather than belonging to a peer group in their class, these students might still be rejected by their classmates while having a peer group outside their class. For example, Gordon and colleagues (2004) reported that delinquent adolescents are likely to join a group of other delinquent peers.

Table 4. *Perceived Attainment of Developmental Tasks of Adolescents With and Without EBD Attending a Special or a Regular School*

	Adolescents attending special schools (N=261)										Adolescents attending regular schools (N=294)										EBD x school			
	With EBD (n=153)					Without EBD (n=108)					With EBD (n=116)					Without EBD (n=178)						EBD Status	School type	OR
	No	RN	RY	Yes	N	RN	RY	Y	N	RN	RY	Y	N	RN	RY	Y	OR							
Have you attained the task?																								
Developmental Task Questionnaire																								
Peer group	14	19	28	40	18	12	19	51	10	16	19	55	7	8	20	67	1.7*	0.6	0.7					
Body acceptance	12	16	22	50	1	7	25	68	13	20	30	37	5	19	28	49	1.8*	1.8	1.5					
Identity	12	19	26	43	7	18	28	47	10	14	30	46	3	14	35	48	1.3	0.8	0.9					
Autonomy	14	28	35	24	13	23	37	27	15	21	35	30	14	17	38	30	1.0	0.8	1.3					
Academic achievement	5	22	42	32	5	8	49	38	4	16	48	31	2	14	43	41	1.6*	0.9	1.0					
Career choice	19	16	19	46	9	24	25	42	22	13	23	41	7	16	23	55	1.9**	1.1	0.5*					
Occupational competence	10	24	40	27	7	19	44	31	8	24	41	28	3	17	40	39	1.9**	0.8	0.7					
Realistic self-perception	3	10	33	54	3	13	33	51	1	10	37	52	1	5	39	55	1.2	0.9	0.7					
Romantic relationships	21	17	14	48	27	14	19	40	18	15	14	53	21	16	18	46	1.3	0.8	1.0					
Close friendships	5	9	18	69	8	7	20	64	3	7	20	70	2	5	12	81	2.1*	1.3	0.4*					
Gender-role awareness	8	17	42	33	13	22	42	23	5	15	35	46	3	15	40	42	1.0	0.7	0.6					
Sociopolitical awareness	4	17	50	29	6	9	46	39	3	12	40	45	2	4	36	58	1.8*	0.6*	0.8					
Supplementary variables																								
Peer-group member				63				55				66				74	1.4	2.7***	0.4*					
Romantic relationship				41				29				29				24	1.8*	0.8	0.7					

Notes. No = percentage answering no. RN = percentage answering rather no than yes. RY = percentage answering rather yes than no. Yes = percentage answering yes. EBD status: 0 = No EBD, 1 = EBD. School status: 1 = special school, 2 = regular school. Because of rounding, not all percentage sets total 100. * $p < .05$. ** $p < .01$. *** $p < .001$

4.3.2 Summary of Study II

Margraf, H. & Pinquart, M. (in press). Do adolescents with emotional and behavioral disturbances attending schools for special education have lower expectations regarding the transition to adulthood? *European Journal of Psychology of Education*.

Objectives of Study II. Using a cross-sectional design, the aim of the second study was to analyze the relationship of adolescents' expectations about the timing of adulthood transition events with EBD status (EBD vs. no EBD) as well as with school type (regular school vs. special school). Previous results have shown that adolescents with EBD and students attending special schools have poorer future outcomes in the educational, occupational, and social field than adolescents without EBD and regular schooled students (e.g., Klemm, 2010; Newman et al., 2011). Unfortunate chances and barriers to attain developmental goals of adulthood might be related to expectations of needing more time than others for ones' goal attainment or to expectations of failing in ones' goal attainment. Thus, we were interested in whether these negative future prospects are already reflected in adolescents' expectations about the timing of future transitions to adulthood. Based on previous results (e.g., Klemm, 2010; Newman et al., 2011), the first research question asked whether adolescents with EBD and adolescents from special schools have later expectations regarding the completion of postsecondary education and the attainment of a full-time employment than adolescents without EBD and regular schooled adolescents. Moreover, based on further results of adult outcomes (Armstrong et al., 2003; Newman et al., 2011; Vander Stoep et al., 2000) we asked whether adolescents with EBD compared to adolescents without EBD have later expectations with regard to the timing of moving out of their parental home and age at marriage but have earlier expectations with regard to age at first parenthood. Lower success with adult transitions might also influence adolescents' general expectation to attain adulthood transition events. Therefore, the second research question asked whether a larger number of adolescents with EBD and a larger number of students from special schools anticipate to not attain some of the transitions at all.

Results. Separate analyses of covariances (ANCOVAs) were computed for the five transition events. No main effect of school-type was found with regard to adolescents' expected timing of the transitions. Regarding EBD status, a main effect was found for the expected timing of marriage ($F(10,343) = 6.20, p < .013, \eta_p^2 = .02$). Adolescents with EBD expected to marry at an earlier age than adolescents without EBD. An interaction effect of school type and EBD status ($F(10,438) = 5.08, p < .025, \eta_p^2 = .01$) was found for the timing of full-time

employment. Students with EBD from regular schools anticipated to be full-time employed at a later age than the other students.

About 14% ($n = 80$) of the participants expected not to marry at all and 12.5% ($n = 70$) reported they will never have a child. Binary regression analyses were computed to search for predictors of never expecting marriage and parenthood. Students from special schools were more likely to anticipate remaining unmarried ($B = -.88$, Wald $\chi^2(1) = 6.32$, $p < .012$, $\text{Exp}(B) = .41$) than the other students.

Discussion. Our findings suggest that school type and EBD status only have a minimal impact on adolescents' anticipated timing of adulthood transitions and their expectations to attain these transitions. Overall our results do not indicate that poor developmental attainments during adolescence and unfortunate adulthood outcomes of adolescents with EBD and students from special schools are reflected in their expectations about the timing of adulthood transitions. In contrast, the expected sequence of adulthood transitions and the anticipated ages for these transitions found in our sample were rather comparable to previous results on future expectations from regularly schooled students who would, in most cases, not fulfill the criteria of EBD (e.g., Crockett & Bingham, 2000). They were also similar to national data on the actual timing of adulthood transitions (Eurostat, 2009; Statistisches Bundesamt, 2015). This optimistic view of the future neither corresponds to their initial situation nor to adult outcomes reported for adolescents with EBD and students from special schools (e.g., Klemm, 2010; Newman, 2011). Thus, one might speculate that adolescents with EBD and students from special schools tend to overestimate their opportunities and downplay or underestimate future problems. According with this assumption, a positive illusionary bias has been reported for youths with externalizing problem behavior (e.g., Owens et al., 2007). Overly optimistic expectations might be functional for the time they start striving for adult transitions as an overestimation of ones' competences protects from feelings of incompetence and failure, and promotes self-esteem and well-being at present (Diener & Milich, 1997). Positive expectations are related to individuals' well-being and motivate to engage in purposeful actions (Wigfield & Eccles, 2000). However, research on school-to-work transitions has shown that not being able to downgrade overly optimistic aspirations after initial failures increases the risk for not obtaining an apprenticeship at all (Tomasik, Hardy, Haase, & Heckhausen, 2009). Our research results suggest that students with EBD and students from special schools might need to downgrade their positive expectations at a later time.

4.3.3 Summary of Study III

Margraf, H., & Pinquart, M. (submitted). Goal engagement in adolescents with and without emotional and behavioral disturbances attending different school types.

Objectives of Study III. Academic competence and career choice are essential for adolescents' successful post-school transition (Patton, Creed, & Muller, 2002). Although adolescents with EBD and adolescents from special schools are distinguished by poor academic achievement and school-to-work transitions (e.g., Klemm, 2010; Newman et al., 2011) possible reasons for those outcomes have not been addressed. In this context, processes of goal-striving have not been assessed systematically even though they are closely related to success and failure in goal attainment (Heckhausen & Schulz, 2010). Thus, in a longitudinal study design we examined goal-striving processes with regard to academic achievement and career choice of adolescents with and without EBD attending different school types. Research has shown that the employment of goal-striving processes and the effectiveness of goal engagement are related to internal and external conditions and to the attainability of a goal (e.g., Brunstein, 1993; Hall et al., 2010; Massey et al., 2008). As adolescents with EBD and larger parts of students from special schools tend to have internalizing and/or externalizing symptoms, few resources and may face several barriers in the process of goal attainment (Bele et al., 2013; Hofmann-Lun, 2011; Kauffman, 2005), their goal-striving processes and/or the effectiveness of their goal engagement may be affected. In a first research question, we asked whether adolescents with EBD and students from special schools differ from adolescents without EBD and from regular schooled students in their goal engagement. It was asked whether they engage less or disengage more often from attaining academic competence and making a career choice. In a second research question, we asked whether their initial goal engagement has lower effects on progress in perceived goal attainment when compared to adolescents without EBD or regular schooled students.

Results. Multivariate analyses of covariances (MANCOVAs) were computed to compare the goal-striving processes of the four groups. No effects of school type and EBD status were found for goal engagement. A main effect of EBD status was found for goal disengagement with regard to academic competence and career choice. Adolescents with EBD reported more goal disengagement than their peers without EBD. Also, the tendency to use goal engagement strategies rather than goal disengagement strategies was less pronounced in adolescents with EBD compared to adolescents without EBD. No effect of school type was detected for goal engagement or goal disengagement.

Regression analyses were computed with the perceived goal attainment at wave 2 as criterion variables whereas goal attainment at wave 1, goal engagement, EBD status, school type, the interaction of school type and goal engagement, and the interaction of EBD status and goal engagement served as predictors. Goal attainment at wave 1 predicted goal attainment at wave 2. Goal engagement for gaining academic competence predicted stronger progress in perceived goal attainment at wave 2. School type, EBD status, and the interactions of both variables with goal engagement did not predict progress in the attainment of academic competence or career choice.

Discussion. Adolescents with EBD reported more goal disengagement with regard to attaining academic competence and career choice than adolescents without EBD. Lower chances of success in the occupational and educational field as often reported for adolescents with EBD (e.g., Newman et al., 2011) might have caused this finding. Nonetheless, the goal disengagement scale focused on postponement of goals rather than their abandonment. Thus, adolescents with EBD might still strive for those goals after some time. The observed lack of school type differences in goal-striving processes might suggest that striving for academic competence and making a career choice are equally important for students from both school types as both tasks are highly age-normative.

The present results suggest that all assessed groups of students may benefit from active goal engagement regarding the attainment of academic competence. This finding is rather encouraging as it points out the usefulness of goal engagement in the attainment of academic competence even for adolescents who are at risk for poor scholastic outcomes. The null-finding of goal engagement on progress with career choice might be explained by the fact that this goal may not have been in the focus of some younger adolescents yet and/or that some adolescents may have already made a career choice at T₁. Also, some adolescents might have developed a foreclosed occupational identity by following advice from significant others without actively engaging in making a career choice (Berrios-Allison, 2005).

Neither between-group differences in levels of goal engagement nor between-group differences in the effectiveness of goal engagement could explain the poorer academic competence and less successful school-to-work transition of adolescents with EBD and of special school students. Thus, other potential factors need to be analyzed, e.g., students' cognitive resources, their family climate and social barriers. As adolescents with EBD and students from special schools do not differ from their peers with regard to their overall goal engagement and the usefulness of their goal engagement, they might need to engage more persistently and more efficiently in attaining academic competence and career choice.

5. Discussion

Summarizing the results of all three studies, we found almost no school type differences with regard to goal attainment, future expectancies, or goal-striving processes. Regarding the EBD status, numerous differences between adolescents with and without EBD were detected for goal attainment, one for future expectancies, some for goal disengagement but none for goal engagement. The following discussion will start with comments on the research results, followed by limitations and implications.

The almost lack of school type differences in the assessed outcomes is encouraging as it suggests that different schooling of students with and without EBD does neither affect their attainment of developmental goals of adolescence nor their future expectations or goal striving processes, at least with regard to the goals assessed in the three studies. One might suggest that the statistical control of the EBD status had reduced the chances of finding school type differences. However, additional MANCOVAs and regression analyses using only school type as independent variable did not yield different results. Another explanation may be that effects of special schools' risk and protective factors have canceled each other out. On the one hand, special school students frequently experience discrimination, stigmatization, and social barriers e.g. in their school-to-work transition (e.g., Bos et al., 2010; Hofmann-Lun, 2011). On the other hand, special schools are distinguished by individualized school curricula, small class sizes, a strong classroom management, and paraprofessional support (Lane et al., 2005a). For example, students from special schools have been found to be more satisfied with their teachers' behavior and assistance than students in regular schools (Wilbert & Grünke, 2010). Those protective factors may help to compensate for the risk factors. One might also assume that the subsamples from special and low track regular schools were too similar for school type differences to be detected. Both subsamples can be described as disadvantaged adolescents often coming from families with low SES and difficult social relationships (Bos et al., 2010). If true, both groups should have reported rather poor attainment of developmental tasks and negative expectations about their transitions to adulthood. However, the participants of the present study reported moderate to high levels of perceived attainment of developmental tasks and expectations that were similar to national data on the actual timing of adulthood transitions (e.g., Eurostat, 2009; Statistisches Bundesamt, 2015). Even though adolescents' attainment of developmental goals seems to be independent from the school type they attend, adolescents with EBD might benefit more from one or the other school type with regard to outcomes not tested in this thesis, for example self-concept or achievement

motivation. Ellinger and Stein (2012) reviewed the current state of research on effects of different schooling systems for students with EBD. They concluded that research in this context is deficient and results are often contradictory (Ellinger & Stein, 2012). Therefore, additional thorough empirical research is necessary before making a statement about which school type is most beneficial for the development of students with EBD.

Regarding the effect of EBD on the attainment of developmental goals, multiple group differences were found. Adolescents with EBD seem to lag behind their peers in numerous aspects of psychosocial development (Davis & Vander Stoep, 1997). In line with previous research results (e.g., Davis & Vander Stoep, 1997) our findings suggest that adolescents with EBD are less advanced in the social, academic, and occupational field being less prepared to meet the responsibilities of adulthood. This assumption is congruent to research results showing that adolescents with EBD have poor adult outcomes regarding social, academic, and occupational goals (e.g., Newman, 2011). However, between-group-differences regarding adolescents' goal attainment were not reflected in their future expectations. On the one hand, methodological reasons did not allow us to test adolescents' expectations regarding their attainment of the developmental goals examined in study I and III as expectations cannot be prospectively assessed in the part of students who have already fulfilled them. On the other hand, neither our data nor other research results allow us to predicate whether or not adolescents with EBD actually perceive lagging behind their peers without EBD or whether they are even aware of their poorer chances to attain some goals of adulthood. Expectations about the content and timing of developmental goals are based on cultural and societal beliefs about age-graded development (Nurmi, 1993) and the examined goals were highly normative developmental tasks. If adolescents with EBD are not aware of their unfortunate present attainment and elevated risk for future failures, it is comprehensible that they anticipate a normative timing and sequence of transitions. Future research in this context is needed.

Furthermore, the poorer goal attainment of adolescents with EBD could neither be attributed to lower levels of goal engagement nor to a lower efficacy of goal engagement, at least with regard to the examined goals. Nevertheless, adolescents with EBD reported higher levels of goal disengagement when compared to undisturbed peers. At first glance, this finding may be counterintuitive. However – as previously mentioned – results from our second study show that adolescents with and without EBD mostly have similar expectations regarding their attainment of future developmental goals. The goals studied in this thesis are highly normative age-associated developmental goals (Havighurst, 1948) and might be similarly important for adolescents with and without EBD. Thus, moderate to high levels of

goal engagement seem reasonable when expecting positive future outcomes and regarding these goals' attainments as important. The simultaneous high levels of goal disengagement may be attributed to characteristics of the employed OPS scale that assessed the postponement of goals rather than their abandonment. One might speculate that adolescents with and without EBD may similarly engage in attaining developmental goals but that adolescents with EBD may postpone the attainment of those goals more frequently and/or sooner than adolescents without EBD because of being confronted with more barriers. Whether they still strive to attain the desired goals after some time cannot be said at this point.

Summed up, two questions remain. First, why are adolescents with EBD less successful in their goal attainment without showing lower reported levels of or less efficient goal engagement? The OPS scale measured goal engagement broadly and was not specific to individual developmental goals. Systematic group differences may be detected if measuring goal engagement specifically and concretely for each developmental goal. For example, regarding career choice, adolescents may be asked what they do exactly to reach that goal. Do they visit a job counselor, visit a job center, or participate in internships?

As successful goal attainment does not only depend on goal engagement, the second remaining question is: What other factors might actually contribute to lower levels of successful attainment of developmental tasks of adolescents with EBD? Future research in this context is needed. For example, Whiston and Keller (2004) concluded that a family environment distinguished by support, warmth, openness, and respect for autonomy is positively related to career exploration and development. Adolescents with EBD are characterized by low levels of social support and adverse family relations (Wagner et al., 2005) which might lead to lower goal attainment. As general mental abilities are an important predictor of academic achievement (Laidra, Pullmann, & Allik, 2007) adolescents with EBD may have lower levels of this resource and thus may be restricted in their attainment of academic goals. Finally, prejudice, and stigmatization make it difficult for both adolescents with EBD and students from special schools to attain a vocational training or occupation (e.g., Hofmann-Lun, 2011). Those social barriers might impede their school-to-work transition.

5.1 Limitations

Several limitations of the studies need to be considered. For clarity we will list limitations of the sample before taking a closer look at restrictions of the measures and data. First, only low-track schools were used for comparison. More pronounced differences might have been found if we had compared students from special schools with those from regular

middle-track and high-track schools. Nevertheless, low-track schools were most suitable for comparison because special schools for students with EBD and low-track schools follow a similar school curriculum and give their students the possibility to graduate with a low-track diploma. Second, the longitudinal sample size only allowed for medium effects to be identified. Third, in the longitudinal analysis a large dropout rate was detected. However, school-absenteeism which is highly prevalent at low-track and special schools (e.g., Gängler & Wiere, 2005; Wagner & Cameto, 2004) might explain, in part, the large number of students not having participated in the longitudinal analysis. Participants who dropped out of the study after T₁ showed a lower initial goal engagement regarding their academic competence than those who participated at both measurements. Engaging little in attaining academic competence is a risk factor for not meeting scholastic performance goals and thus dropping out of school. Fourth, significantly more males than females participated especially in the special schools' samples. Nevertheless, low-track and particularly special schools are usually distinguished by an unbalanced gender distribution educating more boys than girls (Statistisches Bundesamt, 2014).

Some restrictions need to be taken into account regarding the employed measures. First, only adolescent self-reports were used. Due to a minimal response rate the parental data could not be employed in the present thesis. However, with regard to adolescents' goal attainment, the validity of the DTQ was supported by the assessment of actual events (e.g., currently belonging to a peer-group), and parental reports on adolescents' goal attainment have been found to be not very accurate (Limaye, 2010). Nevertheless, processes of social comparison might have influenced students' self-reports on their current developmental status ("How far along am I compared to my classmates) which may have reduced differences between school types. Also, with concern to the adolescents' EBD parents and teachers tend to have difficulties identifying their children's emotional problems (Plück et al., 1997) and they would have limited knowledge about their children's future expectancies. Second, we did not measure clinical diagnoses but emotional and behavioral disturbances. By assessing disturbances instead of clinical diagnoses we were able to test the participants in groups using economic screening questionnaires. This procedure also allowed us to include adolescents that may not have fulfilled the entire criteria of a clinical diagnosis but were still distinguished and distressed by extensive, clinically relevant behavior problems. Thus, our results indicate that already adolescents with sub-clinical emotional and behavioral disorders may be characterized by poor goal attainment and would benefit from interventions. Third, no separate analyses for adolescents with only internalizing, only externalizing, or both problem

behaviors were carried out because studies show high comorbidity rates of internalizing and externalizing problem behaviors (Ihle & Esser, 2002). Fourth, similar to other studies successfully using the adapted OPS scales (e.g., Pfeiffer & Piquart, 2011) the reliability of the goal disengagement scales was low. Fifth, the attainment of adolescents' developmental goals was assessed on the basis of single items. However, multi-item scales are not available for most developmental tasks. Additional analyses measuring the attainment of developmental tasks more broadly are needed. Sixth, class (e.g., group dynamics) and school (e.g., school climate) differences were not taken into consideration. Those factors might also have an impact on the developmental success, future expectancies, and goal-striving processes of adolescents with EBD and students from special schools. Seventh, study I and II only used correlative data. Thus, no causal conclusions can be drawn. Experimental designs are needed to test whether a reduction of EBD symptoms is related to a more successful attainment of developmental tasks relative to adolescents with EBD whose symptoms do not decrease. Longitudinal data is needed to analyze how expectancies about adult transitions change over the years and whether different patterns of change are associated with differences in goal attainment. Those studies could also examine whether poor adult outcomes are mainly found for adolescents having later and/or lower expectancies about their adult transition. Eighth, study III addressed only two developmental goals in the context of goal-striving processes. Future research should also analyze goal engagement and disengagement with regard to other developmental goals that seem to be difficult to attain especially for students with EBD.

5.2 Need for Intervention

As students from special schools but especially adolescents with EBD lag behind their peers in the attainment of developmental tasks of adolescence and adulthood and seem to have an overly optimistic view of their adulthood transitions, we suggest several types of interventions to be implemented. First, as particularly EBD seem to be related to a lower (perceived) attainment of developmental tasks of adolescence interventions are needed to prevent and reduce internalizing and externalizing problem behavior and treat emotional and behavioral disorders. For example, Döpfner and Petermann (2004) suggest evidence-based guidelines for the psychotherapy of externalizing disorders, particularly for conduct problems and oppositional defiance. They recommend a multimodal therapy including psychoeducation of the adolescent and his/her caregiver, cognitive behavioral interventions such as problem-solving and communication trainings and cognitive restructuring, social skills training as well as functional and structural interventions in the family. The authors underline the importance

of including the family and school in the adolescent's therapy. Reducing internalizing and externalizing symptoms and treating psychological disorders might positively influence adolescents' progress with developmental tasks. Second, resource-building interventions focusing on individual developmental goals and transitions could be established at schools such as measures aimed at improving career maturity (Savickas, 1999). Broad life-skills programs could also be helpful to strengthen and promote adolescents' general competences, e.g., intrapersonal and interpersonal skills. By improving adolescents' decision-making, problem-solving, and communication skills and by enabling them to build and maintain positive interpersonal relationships and to perceive their own strengths and weaknesses (Weichold & Silbereisen, 2014), those programs might promote the attainment of developmental tasks as well. Both types of interventions might also encourage a more persistent and more efficient goal engagement that especially adolescents with EBD seem to need considering their lower levels of goal attainment and simultaneous equal overall goal-striving processes. Fourth, social barriers, prejudice, and stigmatization might as well have an impact on goal attainment of adolescents with EBD and students from special schools. For example, prejudice and stigmatization make it difficult for those adolescents to attain a vocational training or occupation (Hofmann-Lun, 2011). Thus, the society also has to be responsive to the needs of those adolescents e.g., by reducing external barriers for postsecondary education and labor market entry. Fifth, coping skills training focusing on how to cope with unsuccessful goal attainment and transitions could be implemented. Learning how to actively solve problems and how to deal with unmet expectancies, difficult realities, and stress e.g., through seeking advice and social support, reflecting about solutions and decision-making, might be beneficial for adolescents with EBD and students from special schools (Seiffge-Krenke, 2000).

5.3 Future Research

The present thesis is among the first to examine goal attainment, goal-striving processes, and expectancies about adulthood transitions of adolescents with and without EBD attending different school types. Thus, the reported results give indications for further research needs.

Study I underlines the poor perceived attainment of developmental tasks of adolescents with EBD. Unfortunately, neither the students' desire nor their perceived self-efficacy to attain those tasks was assessed. It is possible that their unsuccessful attainment derives from lower desires to achieve those tasks or from lower control beliefs. The higher

goal disengagement found for adolescents with EBD supports the former assumption. However, the finding that adolescents with EBD employ goal engagement to an equal extent when compared to adolescents without EBD invalidates that hypothesis. Regarding the latter assumption, more research is needed.

As we only assessed goal attainment at two time points during a one-year period, future research should examine how adolescents with EBD do in the long run. Are they able to catch up with their undisturbed peers and reach a comparable level of goal attainment at a later time? Who is able to catch up, who is not, and why?

Study II was one of the first to systematically analyze future expectations of adolescents from special schools. Comprehensive data on post-school biographies and the timing of actual role transitions of German adolescents attending special schools for students with EBD and German low school tracks are not available thus far. Therefore, a final conclusion about the accordance between expected and actual timing of adulthood transitions could not be drawn. Due to methodological reasons we were not able to test when adolescents expect to attain the developmental goals of adolescence and if their expectations are met later on. Future research in this context is needed, especially longitudinal data.

In Study III we found that initial goal engagement did not predict progress in the attainment of career choice. Prospective research should examine other factors that might predict progress in making a career choice, such as social support or cognitive abilities (Laidra, et al., 2007; Whiston & Keller, 2004).

Our finding that adolescents with EBD show a stronger goal disengagement regarding academic achievement and career choice than adolescents without EBD leads to the question whether adolescents with EBD simply postpone those goals and strive for them at a later time, whether they find alternative goals to engage in, or whether they really abandon them. Future attempts to unravel the construct of goal disengagement in this context would help to understand the high goal disengagement of adolescents with EBD. This knowledge is also necessary to construct suitable programs to support the goal attainment of adolescents with EBD.

As we already outlined in the Introduction, the attainability of goals plays an important role in employed goal-striving processes. Thus, in addition to goal engagement and goal disengagement, future research needs to assess the perceived goal attainability. In this context it would also be interesting to examine at what point, i.e. in face of which resources/barriers, goal engagement is beneficial, obsolete, or even detrimental.

Finally, more research on factors possibly contributing to lower levels of successful

goal attainment of adolescents with EBD is needed. In this context reliable and valid measures that extensively assess the perceived and actual attainment of developmental goals would be beneficial. Also, it would be interesting to develop an intervention to support adolescents with EBD in their attainment of developmental tasks of adolescence and to evaluate whether existing life skills programs, resource-building interventions, and coping-skills programs are suitable and effective for adolescents with EBD and special school students.

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7. Appendix

7.1 Manuscripts of the Three Studies

7.1.1 Study I

Margraf, H., & Piquart, M. (2015). Attainment of developmental tasks in emotionally and behaviorally disturbed adolescents across regular vs. special schools: a four-group comparison. *European Journal of Special Needs Education*, 30(3), 351-366. doi: 10.1080/08856257.2015.1023003.

Attainment of developmental tasks in emotionally and behaviourally disturbed adolescents across regular vs. special schools: a four-group comparison

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In Germany, adolescents with emotional and behavioural disturbances (EBD) are either schooled in special schools for students with EBD or in regular schools. The present study is the first to compare the perceived attainment of a broad range of developmental tasks of adolescents with and without EBD attending regular vs. special schools. While about 40% of German adolescents from schools for students with EBD did not fulfil the criteria of EBD according to the Youth Self-Report, almost 40% of the students from regular schools fulfilled these criteria. Using ordinal logistic regression analysis, main effects for school type and EBD status as well as interaction effects of school type and EBD status were observed. Adolescents attending special schools reported lower progress in the attainment of one out of 12 developmental tasks. Compared to students without EBD, students with EBD perceived lower attainment of seven developmental tasks, especially of those linked to taking responsibilities of adulthood. The results are discussed regarding how successful attainment of developmental tasks can be supported. Also, reasons for the large number of students without self-reported EBD attending a special school are considered.

Keywords: adolescence; developmental tasks; emotional and behavioural disturbances; special school; regular school

Introduction

Development in adolescence and adulthood can be seen as the result of an interaction between an individual's active pursuit of his/her own development (Heckhausen, Wrosch, and Schulz 2010), his/her physical maturation, and social conditions. Havighurst (1948) defined the active pursuit of one's own development as coping with age-dependent developmental tasks. According to Havighurst (1948), these tasks must be accomplished successfully before entering a new period in life. During adolescence, an individual has to accomplish several tasks, such as accepting one's body, adopting a masculine/feminine gender role and developing close relationships with peers (Havighurst 1948). Seiffge-Krenke and Gelhaar (2008) demonstrated that these tasks are still important and salient goals of today's adolescents. Various researches have shown that different aspects have an impact on the attainment of developmental tasks, such as gender, physical maturity, parental support, socio-economic status (SES) and ethnicity (e.g. Deković, Noom, and Meeus 1997;

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Seiffge-Krenke, Kiuru, and Nurmi 2010). Two conditions that have not received much attention in the context of developmental tasks are emotional and behavioural disturbances (EBD) and school types. Thus, they will be the focus of this study.

Development of students with EBD

EBD are common in adolescents. In Germany, prevalence rates between 12 and 27% for EBD have been reported (Ziegert et al. 2002). Adolescents with EBD are characterised by externalising and/or internalising behaviour, e.g. impulsiveness, aggression, attention deficits and emotional symptoms like depression and anxiety (Myschker and Stein 2014). Often, they also exhibit learning disabilities, poor academic performances and low social abilities (Kauffman 2001; Wagner et al. 2005). Adolescents with EBD are often distinguished by a low SES (Bele et al. 2013), low parental support and a broken family environment (Davis and Vander Stoep 1997). Males are overrepresented among youth with EBD (Reid et al. 2004).

Davis (2003) and Davis and Vander Stoep (1997) suggested that adolescents with EBD would lag behind their non-disordered peers in all aspects of psychosocial development being less prepared to meet the challenges and responsibilities of adulthood. In fact, Seiffge-Krenke, Kiuru, and Nurmi (2010) observed that behaviour problems are negatively associated with a sum measure of attainment of developmental tasks. Nevertheless, most of the available research on adolescents with EBD has not included the whole range of adolescent developmental tasks, but rather focused on the attainment of single tasks. For example, adolescents with EBD have elevated difficulties building and maintaining relationships what complicates the integration into peer groups as well as the formation of close friendships (Goetze 2008). Baydik and Bakkaloglu (2009) showed that behaviour problems are the best predictor for social rejection. Even though adolescents with EBD have difficulties in social relationships, EBD are found to be associated with both an early onset of and an overinvolvement in dating behaviour (i.e. multiple dating partners) (Cui et al. 2012; Zimmer-Gembeck, Siebenbruner, and Collins 2001). However, other studies did not find such an association (Van Dulmen et al. 2008). A meta-analysis of Reid et al. (2004) underlines the academic underachievement of adolescents with EBD with moderate-to-large between-group differences. Compared to adolescents without EBD, students with EBD exhibit lower academic skills, higher school absenteeism, higher dropout rates and higher rates of class repetition (e.g. Kauffman 2001; Wagner 1995). With regard to autonomy from parents, studies reported an association of externalising and internalising problems with premature behavioural autonomy (e.g. Haase, Tomasik, and Silbereisen 2008).

School type differences in the attainment of developmental tasks

In line with other European countries such as Belgium or France, Germany has a tracked school system. After having completed elementary school, German students are separated into three different school types depending on their academic accomplishment. In addition, there are different schools for special education varying in which special needs they address, e.g. schools for learning disabled students or schools for blind students (Bos, Müller, and Stubbe 2010). In 2012, approximately 6.6% of German students were in need for special education and 4.8% attended schools for special education (Kultusministerkonferenz 2014). About 10.5% of students with special needs attended a special school for socially and emotionally

impaired students (Kultusministerkonferenz 2014). The lower school track and schools for special education are often marginalised institutions (Bos, Müller, and Stubbe 2010) whose students frequently derive from families with a low SES (Wocken 2005). Especially adolescents attending schools for special education suffer from stigmatisation, labelling and social isolation (Bos, Müller, and Stubbe 2010; Schumann 2008). Recently, there has been an immense effort to establish an inclusive school system that integrates students in need for special education into the three regular school types. The number of German students with special educational needs being educated in regular schools has risen from 17.5% in 2003 to 28.2% in 2012 (Kultusministerkonferenz 2014); 23.8% of them were classified as students with social and emotional problems.

Unfortunately, available research does not allow a comprehensive comparison between the attainments of the broad range of developmental tasks of students from regular vs. special schools. Also, the current empirical research on effects of inclusive education for adolescents with EBD is limited, and so a final conclusion cannot be drawn (Ellinger and Stein 2012). Only few studies meet high methodological standards. The little available research has preponderantly focused on group-differences in academic performances and on aspects of social integration. Most studies report that regular schooled students receiving special needs education are more progressed in their academic performances than students with special needs attending a special school (e.g. Bless 1995; Karsten et al. 2001; Kocaj et al. 2014), but they do not provide separate results for students with EBD. Older studies indicate opposite results (Carlberg and Kavale 1980). Regarding peer acceptance, only few studies found that regular-schooled children with special needs did not have a lower social position than children without special needs in the same classroom (Bear, Juvonen, and McNerney 1993). Predominantly, it has been registered that especially students with EBD are less accepted, often even rejected by their peers who do not have EBD in regular education (e.g. Goetze 2008; de Monchy, Pijl, and Zandberg 2004). Compared to other students, adolescents with EBD are usually the least popular and the most rejected group in class (Mand 2007).

Research questions

The aim of this study was to analyse the relationship of the perceived attainment of adolescent developmental tasks with school types as well as EBD. Three research questions were stated.

First, does the perceived attainment of adolescent developmental tasks vary between students attending regular schools and special schools for students with EBD? As almost no research on this question is available thus far, a directed hypothesis could not be stated.

The second research question asked whether students with and without EBD differ in their perceived attainment of developmental tasks. In accordance with the literature cited in the introduction, it is assumed that adolescents with EBD are less advanced than their peers without EBD in the perceived attainment of developmental tasks that refer to their academic achievement and peer relationships, but more progressed in the accomplishment of tasks that include dating behaviour and autonomy from parents. In line with these hypotheses, it is expected that adolescents with EBD currently belong less frequently to a peer group, but are more frequently involved in a romantic relationship.

The third research question asked whether there would be an interaction effect of school type (regular vs. special school for students with EBD) and EBD (yes vs. no) on the attainment of developmental tasks of adolescence. Adolescents with EBD attending a regular school are often outsiders in their classes (Mand 2007). Thus, it is expected that adolescents with EBD in regular schools report lower perceived levels of peer group integration and also belong to a peer group less frequently than their classmates without EBD and students from special schools. No directed hypotheses could be stated for the other developmental tasks.

Methods

Participants

The data were collected from the lower school track and from schools for special education that focus on adolescents with EBD. Students from both school types have the opportunity to graduate with a lower school track diploma. The data from regular schools were collected in two German secondary lower track schools, while data from the students being schooled in special schools were collected in eight German schools for special education. The larger number of included special schools was based on the fact that these schools have fewer students than regular schools. Data were gathered during class hours. Sixth- to tenth graders were included. About 33.9% of the students did not take part in the survey, mostly due to school absenteeism during data collection, lack of parental permission or of own interest to participate.

A total of 555 adolescents were included in this study. Adolescents belonged to the EBD subsample if their internalising and/or externalising *T*-score of the Youth Self-Report (YSR) was at least 63 based on recommendations given in the YSR manual (Döpfner, Berner, and Lehmkuhl 1994). Therefore, the present sample consists of 261 adolescents from special schools, 153 with EBD and 108 without EBD, and of 294 students attending regular schools, 116 students with EBD and 178 without EBD. The four groups differed significantly with regard to gender ($\chi^2(3) = 53.37$, $p \leq 0.05$), age ($\chi^2(3) = 35.18$, $p \leq 0.05$), habitation ($\chi^2(3) = 31.84$, $p \leq 0.05$) and ethnic background ($\chi^2(3) = 13.49$, $p \leq 0.05$). Since 40% of the participants did not provide any information on their parental education, this variable was not used in further analyses. Socio-demographic characteristics are listed in Table 1.

Measures

Developmental status during adolescence

The perceived attainment of developmental tasks was assessed using a modified version of the Developmental Task Questionnaire (DTQ; Piquart and Pfeiffer 2014). The 12 developmental tasks that were assessed using single items were: peer group integration, acceptance of physical maturity, identity development, autonomy from parents, academic achievement, career choice, gaining occupational competence, development of realistic self-perception, romantic relationships, close friendship, gender role awareness and socio-political awareness (see, Appendix 1). On a 4-point Likert-type scale, the adolescents provided information on their perceived attainment of each developmental task: ‘Have you already attained this goal?’ (1 = no, 2 = rather no than yes, 3 = rather yes than no and 4 = yes).

Table 1. Sample characteristics.

Group	(1) Students with EBD from special schools	(2) Students without EBD from special schools	(3) Students with EBD from regular schools	(4) Students without EBD from regular schools
<i>N</i>	153	108	116	178
Gender (% male)	79.7% ^{ab}	87% ^{cd}	50.9% ^{ac}	56.7% ^{bd}
Mean Age (<i>SD</i>)	14.01 (1.48) ^{ab}	14.09 (1.57) ^{cd}	14.4 (1.57) ^{ac}	14.89 (1.38) ^{bd}
Habitation (% not living with both parents)	69.9% ^{ab}	53.9% ^{cd}	43.1% ^{ac}	43.3% ^{bd}
% ethnic minority	30.1% ^b	28.7% ^d	41.4%	41.4% ^{bd}
Parental education				
≤ lowest track	12.4%	13.9%	23.2%	18.0%
Middle track	14.4%	12.0%	20.7%	23.6%
Highest track	17.6%	24.5%	14.5%	14.1%

Note: Groups with identical superscripts differ significantly, $p < 0.01$.

In addition, adolescents were asked about being in a romantic relationship at present (1 = no vs. 2 = yes), and belonging to a peer group at present (1 = no vs. 2 = yes). In support of the validity of the reported attainment of developmental tasks, we found that adolescents who were, according to their self-report, in a current romantic relationship reported a higher attainment of the task ‘development of a romantic relationship’: $M = 3.83$ vs. $M = 2.46$; $F(1,545) = 202.24$, $p \leq 0.001$ and $\eta_p^2 = 0.27$. In the same manner, those adolescents who currently belonged to a group of peers reported higher levels of ‘peer-group integration’: $M = 3.65$ vs. $M = 2.23$; $F(1,539) = 377.58$, $p \leq 0.001$ and $\eta_p^2 = 0.41$.

Emotional and behavioural disturbances

EBD were assessed using the YSR (Achenbach 1991). The YSR is a self-report instrument for adolescents aged 11–18 years. It measures both externalising and internalising problem behaviour. Items were answered on a 3-point Likert-type scale (1 = not true, 2 = somewhat or sometimes true and 3 = often or very often true). In this study, only 52 items were used that compose the internalising and externalising problems. Cronbach’s alpha in this study was 0.92 (internalising behaviour) and 0.88 (externalising behaviour). According to the YSR manual, adolescents whose internalising and/or externalising score were in the clinical range (externalising and/or internalising T -score ≥ 63) were classified as probably emotionally or behaviourally disturbed (Döpfner, Berner, and Lehmkuhl 1994).

Background variables

Socio-demographic characteristics were measured using single-item indicators: age, gender, class level, school grades (Mathematics, German, History and English), habitation (1 = living with both parents vs. 2 = other arrangement), ethnic background (the respondent himself/herself or at least one of his/her parents were born in a country other than Germany; 1 = yes vs. 2 = no) and parents’ highest educational attainment (1 = no school completed, 2 = lowest school track, 3 = middle school track, 4 = highest school track, 5 = vocational training and 6 = university degree).

Results

Table 2 shows Spearman’s correlations between the perceived attainments of developmental task. In order to examine whether the perceived attainment of developmental tasks differed between the four groups, ordinal logistic regression analyses were computed. The perceived attainment of the 12 developmental tasks served as dependent variables. School type and EBD status were used as independent variables. Since students from regular and special schools differed by age, habitation, gender and ethnic background, these variables were inserted as covariates. Adolescents attending special schools reported a lower perceived developmental status than adolescents from regular schools with regard to sociopolitical awareness. The odds ratio of 0.6 indicates that the odds of higher levels of sociopolitical awareness decreased by a factor of 0.6 in adolescents attending special schools (Table 3). Significant differences between adolescents with and without EBD were found regarding peer group integration, academic achievement, career choice, occupational competence, close friendships, sociopolitical awareness and acceptance

Table 2. Correlation matrix of the DTQ variables in the whole sample.

	2	3	4	5	6	7	8	9	10	11	12
1. Peer group	0.10*	0.09*	0.09*	-0.03	-0.03	0.04	0.10*	0.16**	0.20**	0.23**	0.13**
2. Body acceptance		0.12*	0.09*	0.10*	0.12**	0.11*	0.13**	0.05*	0.02	0.09*	0.09*
3. Identity			0.08*	0.31**	0.51**	0.39**	0.29**	0.12**	0.15**	0.37**	0.27**
4. Autonomy				0.07	0.10*	0.06	0.06	0.10*	0.10*	0.16**	0.15**
5. Academic achievement					0.23**	0.31**	0.16**	0.02	0.04	0.20**	0.29**
6. Career choice						0.49**	0.23**	0.10*	0.11*	0.32**	0.26**
7. Occupational competence							0.24**	0.10*	0.12**	0.30**	0.30**
8. Realistic self-perception								0.05	0.19**	0.27**	0.26**
9. Romantic relationships									0.26**	0.21**	0.10*
10. Close friendships										0.27**	0.25**
11. Gender role awareness											0.31**
12. Socio political awareness											

* $p < 0.05$; ** $p < 0.01$.

Table 3. Perceived attainment of developmental tasks of adolescents with and without EBD attending a special or a regular school.

	Adolescents attending special schools (<i>N</i> = 261)										Adolescents attending regular schools (<i>N</i> = 294)														
	With EBD (<i>n</i> = 153)					Without EBD (<i>n</i> = 108)					With EBD (<i>n</i> = 116)					Without EBD (<i>n</i> = 178)					EBD Status		School type	EBD x school	
	N	RN	RY	Y	N	N	RN	RY	Y	N	RN	RY	Y	N	RN	RY	Y	OR	OR						
Have you attained the task?																									
Developmental Task Questionnaire																									
Peer group	14	19	28	40	18	12	19	19	51	10	16	19	30	67	7	8	20	28	49	1.7*		0.6		0.7	
Body acceptance	12	16	22	50	1	7	25	68	13	20	30	37	5	19	5	19	28	49	1.8*		1.8		1.5		
Identity	12	19	26	43	7	18	28	47	10	14	30	46	3	14	3	14	35	48	1.3		0.8		0.9		
Autonomy	14	28	35	24	13	23	37	27	15	21	35	30	14	17	14	17	38	30	1.0		0.8		1.3		
Academic achievement	5	22	42	32	5	8	49	38	4	16	48	31	2	14	2	14	43	41	1.6*		0.9		1.0		
Career choice	19	16	19	46	9	24	25	42	22	13	23	41	7	16	7	16	23	55	1.9**		1.1		0.5*		
Occupational competence	10	24	40	27	7	19	44	31	8	24	41	28	3	17	3	17	40	39	1.9**		0.8		0.7		
Realistic self-perception	3	10	33	54	3	13	33	51	1	10	37	52	1	5	1	5	39	55	1.2		0.9		0.7		
Romantic relationships	21	17	14	48	27	14	19	40	18	15	14	53	21	16	16	18	18	46	1.3		0.8		1.0		
Close friendships	5	9	18	69	8	7	20	64	3	7	20	70	2	5	2	5	12	81	2.1*		1.3		0.4*		
Gender role awareness	8	17	42	33	13	22	42	23	5	15	35	46	3	15	3	15	40	42	1.0		0.7		0.6		
Socio political awareness	4	17	50	29	6	9	46	39	3	12	40	45	2	4	2	4	36	58	1.8*		0.6*		0.8		
<i>Supplementary variables</i>																									
Peer group member				63					55					66					74	1.4		2.7***		0.4*	
Romantic relationship				41					29					29					24	1.8*		0.8		0.7	

Notes: N = percentage answering No. RN = percentage answering rather no than yes. RY = percentage answering rather yes than No. Y = percentage answering yes. EBD status: 0 = No EBD, 1 = EBD, School status: 1 = special school, 2 = regular school. Because of rounding, not all percentages sets total 100.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

of physical maturity, with adolescents without EBD reporting higher perceived levels of attainment compared to adolescents with EBD (Table 3). For example, the odds ratio of 1.7 indicates that the odds of higher levels of peer group integration increased by a factor of 1.7 in adolescents without EBD. The group difference in acceptance of physical maturity may relate to the fact that adolescents with EBD had significantly higher ‘somatic complaints’ in the YSR than adolescents without EBD ($F(1,551) = 204.72$, $p \leq 0.001$ and $\eta_p^2 = 0.27$). Additionally, interaction effects between EBD status and school type were found for career choice and close friendships (Table 3). Adolescents without EBD attending regular schools reported the highest status of having a close friend ($M_{\text{NoEBD/incl}} = 3.70$ vs. $M_{\text{NoEBD/exc}} = 3.45$, $M_{\text{EBD/exc}} = 3.57$ and $M_{\text{EBD/incl}} = 3.52$) and the highest status of career choice ($M_{\text{NoEBD/incl}} = 3.26$ vs. $M_{\text{NoEBD/exc}} = 2.99$, $M_{\text{EBD/exc}} = 2.92$ and $M_{\text{EBD/incl}} = 2.84$).

Significant main effects were also found for the covariates age and gender. Boys reported higher levels of acceptance of physical maturity, identity development and development of realistic self-perceptions. Girls reported higher levels of having a close friendship. Regarding age differences, older adolescents stated higher statuses of peer group integration, autonomy development, having a close friendship and gender role awareness. However, younger adolescents reported higher levels of perceived attainment with regard to acceptance of physical maturity and academic achievement. Adolescents with an ethnic minority background reported lower levels of peer group integration.

Using binary logistic regression analysis, the probability of currently belonging to a group of peers and having a current romantic relationship was tested. The school type ($B = 1.04$, Wald $\chi^2(1) = 12.51$, $p < 0.001$ and $\text{Exp}(B) = 2.82$) and the interaction of school type and EBD status ($B = -0.86$, Wald $\chi^2(1) = 5.00$, $p < 0.05$ and $\text{Exp}(B) = 0.43$) significantly predicted whether an adolescent belonged to a peer group. The odds of belonging to a peer group were higher for adolescents from regular schools than for adolescents from special schools. Also, the odds of currently belonging to a peer group were significantly higher in regularly schooled adolescents without EBD than in adolescents from special schools with ($t(321) = 2.56$, $p < 0.05$ and $\text{Exp}(B) = 1.21$) and without EBD ($t(274) = 3.72$, $p < 0.05$ and $\text{Exp}(B) = 1.38$). Regarding the current relationship status, only a significant main effect of EBD status was found ($B = 0.58$, Wald $\chi^2(1) = 4.43$, $p < 0.05$ and $\text{Exp}(B) = 1.78$). The odds of being in a current romantic relationship were higher for adolescents with EBD than for adolescents without EBD.

Discussion

Today’s debate about regular vs. special education of students with EBD predominantly addresses differences in students’ academic achievement and social acceptance. This study is the first that analysed school type differences and differences between students with and without EBD in the perceived attainment of 12 developmental tasks. Throughout the whole questionnaire, the participants reported moderate-to-high levels of perceived attainment of developmental tasks, indicating the relevance of those tasks for today’s adolescence (Seiffge-Krenke and Gelhaar 2008). Compared to adolescents attending regular schools, adolescents attending special schools only reported lower levels of sociopolitical awareness. Adolescents with EBD were less advanced than adolescents without EBD regarding peer group integration, close friendships, acceptance of physical maturity, gaining occupational

competence, career choice, sociopolitical awareness and academic achievement. Also, interaction effects between school type and EBD status were detected. The following discussion will start with some general comments on the prevalence of EBD, followed by the research questions.

This study found that about 40% of adolescents from special schools for students with EBD did not score above the cut-off of EBD according to the YSR. At first glance, this finding may be counterintuitive. Four factors might have contributed to that outcome. First, the development of EBD is best described by change and stability. When reviewing longitudinal studies, Koot (1995) reported that only one-third to one-half of deviant children remained deviant after 2–6 years. Thus, larger numbers of students originally transferred to special schools could be expected to show no longer elevated EBD after having attended the school for some years. Second, the finding might suggest that special schools for adolescents with EBD have a positive influence on their students' EBD (Amon et al. 1998). Third, EBD was assessed using only a self-report measure which holds potential problems regarding the accuracy of the given answers. Socially desirable answers or deliberately given fake answers might have distorted the results, underestimating the levels of EBD. However, adolescents usually report more problem behaviour than their parents (Plück et al. 1997; Ziegert et al. 2002), thus indicating that parental reports would not have led to higher rates of students with EBD. Fourth, it is also possible that some adolescents were misplaced in a special school. Based on a parental or scholastic request to test the student's need for special education, the educational authority decides about school placement. The final decision is based on a report and recommendation written by a special education teacher who tested the student's need for special education. However, there are no fixed procedures or predefined cut-offs in standardised measurements assessing EBD that determine the given recommendation (Kultusministerkonferenz 2000).

While previous studies on the YSR have reported that about 15–20% of German adolescents show EBD (e.g. Ziegert et al. 2002), about 40% of the present regularly schooled sample was identified as having EBD. However, these students came from the lower school track, where risk factors for EBD, such as low SES and problematic family relations, are widespread (Solga and Wagner 2007).

Concerning the attainment of developmental tasks, only few differences were detected between students from regular and special schools. The lower level of sociopolitical awareness of adolescents attending special schools might be attributed to differences in the schools' social science classes. It has been found that the subjects Ethics (Kultusministerkonferenz 2008) and Politics (Baulig 2005) that may promote the attainment of this developmental task are less established in special than in regular schools. Also, adolescents attending a special school were less likely to belong to a peer group at present. This might be explained by the fact that special schools and their classes are usually small, with classes only consisting of about 11 students (Ministerium für Schule und Weiterbildung 2014). Therefore, the possibility to establish a peer group one fits in is fairly smaller compared to regular schools, where classes include at least twice as many students. The DTQ only revealed a marginal effect of school type on perceived integration into a peer group. Differences in assessment (dummy variable vs. 4-point Likert-type scale) and statistical tests may explain the slight divergence of the results.

Regarding comparisons of students with and without EBD, a number of differences were found. Students with EBD showed lower levels of body acceptance what

might be explained by their higher somatic complaints. Moreover, adolescents with EBD reported lower attainments of tasks indicating responsibilities of adulthood, i.e. gaining occupational competence and choosing a future profession. In accordance with this result, Deković, Noom, and Meeus (1997) showed that adolescents low in impulse control expect to achieve tasks that are related to taking responsibility later. Also, this finding relates to studies reporting that during the first three years after having graduated, adolescents with EBD have high unemployment rates as well as low rates of postsecondary education and training (Frank, Sitlington, and Carson 1995; Wagner 1995). In line with previous expectations, students with EBD reported a lower attainment of academic achievement than students without EBD what might be explained by their high school absenteeism or low academic abilities (e.g. Kauffman 2001). Moreover, adolescents with EBD were less progressed in their sociopolitical awareness, underlining their difficulties to obey social rules (Myschker and Stein 2014). In accordance with our assumptions, adolescents with EBD perceived lower attainments of peer group membership and building close friendships. This finding emphasises the difficulties adolescents with EBD have in building and maintaining close relationships (Kauffman 2001). It is also in line with previous studies reporting an elevated risk of being socially rejected found for adolescents with EBD (Goetze 2008). Regarding the dating behaviour of students with EBD, our expectations were to some extent confirmed. Even though no differences were found in the perceived attainment of developing a romantic relationship, the probability for being in a current romantic relationship was higher for adolescents with EBD than for adolescents without EBD. In contrast to earlier expectations, the perceived autonomy from parents did not differ between adolescents with and without EBD. Autonomy is a multidimensional construct that manifests itself in affective, behavioural and cognitive domains (Steinberg 2013). Differences in the attainment of autonomy development might have emerged if various facets of autonomy had been assessed.

Finally, interaction effects of school type and EBD status were found. Adolescents without EBD attending regular schools reported the highest level of career choice, suggesting they are more certain about their occupational future than the other groups. On the one hand, they might know they have better chances on the job market than their peers attending special schools. On the other hand, adolescents with EBD are often characterised by low executive functions (Kauffman 2001) that may impede them from planning their future.

Moreover, adolescents without EBD from regular schools were the most advanced in developing a close friendship. This subgroup was also most likely to belong to a peer group at present, suggesting that undisturbed students attending a regular school have the least problems building up social relationships. In contrast to earlier assumptions, students with EBD from regular schools did not report the lowest perceived attainment of belonging to a peer group. This assumption was based on previous research that preponderantly focused on students' social position inside their classrooms (e.g. Mand 2007). If students with EBD are rejected by their classmates, they may still find a peer group outside their class. For example, delinquent adolescents are likely to join a group of other delinquent peers (Gordon et al. 2004).

Results on age, gender and ethnicity are in accordance with previous studies. Reported gender differences are congruent to gender stereotypes, e.g. boys having fewer difficulties accepting physical change during puberty, girls being more progressed in developing intimacy (Steinberg 2013). Also, adolescents with an ethnic minority background have been found to experience social exclusion more often

than adolescents without an ethnic minority background (e.g. Verkuyten and Thijs 2002). Havighurst's assumption (1948) that adolescents attain more developmental tasks as they get older is supported by most of the findings. Younger adolescents reporting higher perceived attainment of getting good grades might be explained by increasing and more difficult scholastic demands leading to lower academic achievements of older adolescents. Observed lower levels of perceived body acceptance in older adolescents probably reflect negative effects of pubertal changes on body satisfaction (Eisenberg, Neumark-Sztainer, and Paxton 2006).

Limitations

Some limitations of this study should be mentioned. First, no separate analyses for adolescents with only internalising, only externalising or both problem behaviours were carried out because studies show high comorbidity rates of internalising and externalising problem behaviours (Ihle and Esser 2002). Second, only adolescent self-reports were used. Nevertheless, the validity of the DTQ was supported by the assessment of actual events (e.g. currently belonging to a peer group). Although additional information on the attainment of developmental tasks could be gained from other sources such as parents, parental reports are not very accurate (Limaye 2010). Similarly, parents tend to have difficulties identifying emotional problems of their children (Plück et al. 1997). Third, the attainment of each developmental task was measured on the basis of a single item. Multi-item scales are not available for most developmental tasks. Additional analyses assessing the attainment of developmental tasks more broadly and thoroughly are needed. Also, only correlative data have been used so that the results do not allow drawing any causal conclusions. Experimental designs could test whether a treatment and reduction of EBD is related to a more successful attainment of developmental tasks compared to adolescents with EBD whose symptoms are not being treated.

Conclusion

Despite the limitations listed above, several conclusions can be drawn. First, high numbers of students attending a special school without fulfilling the criteria of EBD according to the YSR indicate that many students may no longer need this kind of special school. Regular screenings of students' EBD should be implemented into special schools' agenda followed by the possibility of a transfer to a regular school. It might be speculated that transferred students are more successful with the attainment of some developmental tasks in regular school settings. Second, as many adolescents with EBD attend regular schools, interventions are needed to prevent and reduce EBD in these schools. Reducing symptoms of EBD at regular schools might also positively influence adolescents' progress with developmental tasks. Third, adolescents with EBD seem to be less prepared to attain some age-typical developmental tasks than their peers without EBD. On the one hand, specific interventions that focus on individual tasks could be implemented, such as programmes focusing on improving career maturity (Savickas 1999). On the other hand, broad life skills programmes could be helpful to promote adolescents' general competences, i.e. intrapersonal and interpersonal skills, enabling the adolescents to handle age-typical tasks successfully. Those programmes aim to improve adolescents' abilities to make their own decisions; to solve problems and communicate adequately; to build up

and maintain positive interpersonal relationships; and to perceive their own strengths and weaknesses (Weichold and Silbereisen 2014). Therefore, it could be assumed that those programmes promote the attainment of developmental tasks in adolescence as well.

Disclosure statement

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Appendix 1. Developmental Task Questionnaire

Have you already attained this goal? (1 = no, 2 = rather no than yes, 3 = rather yes than no and 4 = yes)

- (1) Belong to a group of peers.
- (2) Accept my body as it is.
- (3) Have clear ideas about how I want to live my life.
- (4) Be independent from my parents.
- (5) Getting good grades in school.
- (6) Choose a future profession.
- (7) Acquire skills that are important for my future profession.
- (8) Know my strengths and weaknesses.
- (9) Have a romantic relationship.
- (10) Have a good friend with whom I can talk about almost everything.
- (11) Have clear ideas of what others expect from me as a man or a woman.
- (12) Act with other people in a socially responsible manner.

Note: This questionnaire is adapted from the modified Developmental Task Questionnaire by Piquart and Pfeiffer (2014).

7.1.2 Study II

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Do adolescents with emotional and behavioral disturbances attending schools for special education have lower expectations regarding the transition to adulthood?

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Abstract Individuals with emotional and behavioral disturbances (EBD) and those attending special schools tend to have poorer adult outcomes than adolescents without EBD and peers from regular schools. Using a four-group comparison (students with or without EBD from special schools and students with or without EBD from regular schools), the present study examined whether German adolescents with EBD and adolescents attending special schools also have lower expectations regarding their transition to adulthood (moving out of parents' home, finishing postsecondary education, being full-time employed, getting married, and becoming parents) than adolescents without EBD and adolescents attending regular schools. Only small between-group differences were found regarding the expected timing of transitions and the anticipation to not attain transitions at all. Adolescents with EBD reported later expected ages of marrying and adolescents with EBD attending regular schools expressed later ages of being full-time employed. Students from special schools more often anticipated remaining unmarried. The results are discussed with concern to how adolescents' overoptimistic expectancies can be handled. Also, the instrumentality of confidence of success is considered.

Keywords Adolescence · Expectancies · Adulthood transition · Emotional and behavioral disturbances · Special school · Regular school

For centuries, scholars have discussed adolescence as a period of turmoil, “storm and stress” (Hall 1904). Nowadays, the focus has shifted and adolescence is broadly viewed as a time of exploration and thinking about the future. Adolescents develop an extended future-oriented

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thinking that improves their capability of life planning (Blakemore and Choudhury 2006). They are able to generate expectations about role transitions and at what ages those will most likely occur (Crockett and Beal 2012). These expectations have a decisive impact on their following adult life, as they influence their future attainment in several domains. Numerous aspects such as age, gender, and parental education (Crockett and Beal 2012; Crockett and Bingham 2000) have been shown to affect adolescents' expected and actual role transitions. Two factors that have not received much attention in this context are emotional and behavioral disturbances (EBD) and school types. Thus, they will be the focus of the present study.

Expectations and successful attainment of developmental tasks

Adolescents' transition to adulthood is considered a critical developmental passage, and various research perspectives on this topic exist. Largely, research on transitions can be separated into two lines (Hviid and Zittoun 2008). One line studies the changes taking place *during* the transition phase, such as goal setting, acquisition of skills needed for mastering the transition, identity changes, and sense making of the changes that take place (Zittoun 2008). The other line of research examines *outcomes* of these transitional processes and in this context also focuses on variables that might influence these outcomes such as parental support. The present study rather fits into the first line of research. Expectancies can be seen as a step toward attaining adulthood outcomes and therefore as part of the transitional process: individuals have to expect an outcome before starting actively to persecute that goal (Crockett and Beal 2012). However, the present study also examines variables that might influence expectancies about transitional outcomes and therefore also relates to the latter research strategy.

Support for the influential role of individuals' expectations in later attainment and development has been reported in several studies. For example, adolescents' educational and occupational expectations predict their future educational and occupational attainment (Beal and Crockett 2010; Mello 2008). Hogan's (1986) longitudinal analysis of the "High School and Beyond Student Survey" underlined the predictive value of adolescents' future expectancies on their future family formation. Similarly, Crockett and Beal (2012) reported an association between adolescents' anticipated timing of adulthood role transitions and the actual timing of those transitions in early adulthood. More precisely, adolescents' anticipated age of marriage predicted the actual age of marriage in early adulthood.

Studies that examined adolescents' perceived order and timing of adulthood transition events report that those expectations are congruent to the pattern of the actual average timing of role transitions (Crockett and Bingham 2000; Greene et al. 1992). The normative adulthood transition sequence reported by adolescence is as follows: leaving home, completing postsecondary education, beginning full-time employed, marriage, and parenthood (e.g., Greene et al. 1992). In Germany, material independence from parents is usually accomplished at age 19.7 years for non-college-bound youth and at age 24.6 years for college-bound youth (Reitzle and Silbereisen 1999). The mean age for leaving ones' parental home is around age 23.9 years for women and 25.1 years for men (Eurostat 2009). The mean age for marriage is 30.7 years for women and 33.5 years for men (Statistisches Bundesamt 2014). German women are approximately 29.2 years old when they have their first child (Statistisches Bundesamt 2014). Due to an extended education and a higher percentage of adolescents striving for a high education, the age in which adulthood transitions are experienced today has increased during the last century (e.g., Statistisches Bundesamt 2014).

In this context, it has been reported that the expected and actual timing of transition events are influenced by various factors. For example, adolescents report somewhat different normative timetables for females and males with women expecting and being expected to marry and have children at a younger age than men (Crockett and Beal 2012). In addition, results show that older adolescents expect transition events to occur at older ages (Crockett and Beal 2012). Higher parental education has been related to adolescents' expectancies of later entries into different adult roles (Crockett and Bingham 2000). Family structure and family relationships have also been found to influence the timing of adulthood transitions (Crockett and Bingham 2000; South 2001). Besides, research shows that adolescents from ethnic minorities have later autonomy expectations than other adolescents (Feldman and Quatman 1988). Also, optimism positively influences adolescents' expectations about their future (McWhirter and McWhirter 2008).

The transition to adulthood in adolescents with EBD

The transition to adulthood holds a number of challenges especially for adolescents with disabilities. In the USA, two National Longitudinal Transition Studies (NLTS; Wagner et al. 1992; NLTS2; Newman et al. 2011) were conducted to investigate the success with transitions to adulthood of young people with disabilities receiving special education. These studies showed that adolescents with EBD have high rates of dropping out of school as well as low rates of graduating from high school (Wagner 1995; Wagner and Cameto 2004). Their school failure combined with a low socioeconomic status (SES) (Bele et al. 2013) and functional deficits (Myschker and Stein 2014) leaves adolescents with EBD having to deal with challenges of adulthood from a disadvantageous starting point. They seem to be behind their peers in all aspects of psychosocial development and less prepared to meet the challenges of adulthood (Davis and Vander Stoep 1997). In fact, the NLTS2 and other studies demonstrated that adolescents with EBD have poorer adult outcomes in several domains compared to students without EBD. Youth with EBD are less likely to be enrolled in postsecondary education or employed, and they are less likely to have moved out of their parent's home, less likely to be married, but more likely to have gotten pregnant or to have impregnated someone else (Armstrong et al. 2003; Newman, et al. 2011; Vander Stoep et al. 2000). Little is known about how adolescents with EBD conceptualize the transition to adulthood. It has been reported that adolescents low in impulse control and high in sensation seeking (who are likely to show elevated levels of externalizing problem behavior) have later expectations for tasks associated with future responsibilities (e.g., choosing a profession and taking care of school career) than their peers high in impulse control. However, they tend to have earlier timetables for tasks related to privileges of adulthood such as deciding on ones' curfew and setting up an independent life (Deković et al. 1997). Low self-control and delinquency have also been found to be negatively related to expectations regarding educational achievement (Clinkinbeard 2014).

The transition to adulthood in different school types

Like other European countries such as Belgium or France, Germany has a tracked school system. Depending on their academic accomplishment in elementary school, German students

are separated into three different school types. Additionally, there are different schools for special education varying in which special needs they address (Bos, Müller, and Stubbe 2010). In Germany, upon parental or scholastic request, a student's need for special education is tested by a special education teacher. Based on this teacher's report and recommendation, the educational authority finally decides about the student's school placement. However, in the case of students with EBD, there are no predefined cutoffs in standardized measurements assessing EBD that determine the given recommendation (Kultusministerkonferenz 2000). In 2012, 6.6 % of German students were in need for special education and 4.8 % attended a school for special education. About 10.5 % of students with special needs attended a special school for socially and emotionally impaired students (Kultusministerkonferenz 2014). Recently, there has been a great effort to establish an inclusive school system integrating students in need for special education into the three regular school types. Therefore, the number of German students with special educational needs being educated in regular schools has risen from 17.5 % in 2003 to 28.2 % in 2012; 23.8 % of them were classified as students with social and emotional problems (Kultusministerkonferenz 2014).

Different school types (regular vs. special schools) have neither been considered in research on the transition to adulthood nor in research on adulthood expectations. Unfortunately, the NLTS2 (Newman et al. 2011) did not separate between students with EBD receiving special education attending a regular or a special school. However, some German research has been conducted on postschool education and employment of former students from special schools in general. Nevertheless, no separate analyses are available for students with EBD from special schools in particular. About 76 % of German students from special schools for students with heterogeneous disabilities leave their school without a diploma compared to 26 % of students from the regular low school track (Klemm 2010). Chances to attain a vocational training or an occupation are low for those individuals as only every sixth German young adult without a school diploma finished a vocational training (BIBB 2011). On the basis of these findings and the fact that students from special schools often suffer from stigmatization, labeling, and social isolation (Schumann 2008), it can be assumed that students with EBD attending special schools face great difficulties regarding postsecondary education and future occupations. When most students from special schools leave their schools without a diploma (Klemm 2010), getting a diploma seems to be a non-normative transition event and a larger part of these students might not expect to master this transition.

Research questions

The present study examined to what extent EBD status (EBD vs. no EBD) and school types (regular school vs. special school) explain differences in expectations about the timing of adulthood transition events. Special schools focusing on adolescents with EBD and regular low track schools ("Hauptschule") were used for comparison because both school types are equivalent regarding the kind of diploma that their students may obtain after the ninth or tenth grade.

As reported in the "Introduction" section, adolescents with EBD and adolescents attending special schools have poorer outcomes with regard to their future educational and occupational attainment as well as their social attainment. These negative future prospects may already be reflected in adolescents' expectations about future transitions to adulthood. Two research questions were stated.

Due to poorer educational and occupational outcomes in adulthood, the first research question asked whether adolescents with EBD and adolescents attending special schools anticipate completing postsecondary education and being full-time employed later than students without EBD and students attending regular low track schools. Also, based on previous results (e.g., Wagner 1995), we asked whether adolescents with EBD expect to move out of their parental home and marry later than adolescents without EBD but have earlier expectations regarding age at first parenthood.

The second research question asked whether lower adult transition rates lead to a larger number of adolescents with EBD and adolescents from special schools anticipating to not attain some of these transitions at all.

In addition, adolescents with and without EBD as well as adolescents attending special versus regular schools might differ from each other in variables that have been found to influence the expected timing of transitions to adult roles. Therefore, the following analyses controlled for variables that have been reported to influence the expected and actual timing of role transitions: age, gender, SES, ethnic background, optimism, and parental support.

Method

Participants

The data were collected using two German schools from the low school track and eight schools for special education that focus on adolescents with EBD. Larger numbers of special schools were needed for comparison due to their small sizes. Data were gathered during class hours. Sixth to tenth graders (aged 11 to 18 years) were included. About 33.9 % of the students did not participate in the survey, mostly due to school-absenteeism during data collection, lack of parental permission, or lack of own interest to participate.

A total of 555 adolescents (68 % male) were included in this study. The sample consists of 261 adolescents from special schools and of 294 students attending regular schools. Based on recommendations given in the Youth Self-Report (YSR) manual, the participants belonged to the EBD subsample if their internalizing and/or externalizing *T* score was at least 63 (Döpfner et al. 1994). Therefore, 153 students from special schools and 116 students from regular schools belonged to the EBD subsample. The four groups (students with EBD from special schools; students without EBD from special schools; students with EBD from regular schools; students without EBD from regular schools) differed significantly with regard to age ($F(3)=12.67, p\leq 0.001$), gender ($\chi^2(3)=53.37, p\leq 0.001$), habitation ($\chi^2(3)=31.84, p\leq 0.001$), ethnic background ($\chi^2(3)=13.49, p\leq 0.001$), optimism ($F(3)=9.90, p\leq 0.001$), maternal support ($F(3)=6.55, p\leq 0.001$), and domain-specific self-efficacy beliefs ($F(3)=8.90, p\leq 0.001$). Since 40 % of the participants did not provide any information on their parental education, this variable was not used in further analyses. Sample characteristics are listed in Table 1.

Measures

Adulthood timetables Based on Crockett and Beal (2012), an adulthood timetable questionnaire was developed to assess adolescents' expectations about the timing of five transitional events. Participating adolescents reported at what age they expected to move out of their parents' home, successfully finish postsecondary education, obtain a full-time employment,

Table 1 Sample characteristics

	Students with EBD from special schools	Students without EBD from special schools	Students with EBD from regular schools	Students without EBD from regular schools
<i>N</i>	153	108	116	178
Gender (% male)	79.7 ^{b,c}	87.0 ^{d,e}	50.9 ^{b,d}	56.7 ^{c,e}
Mean age (SD)	14.01 (1.48) ^{b,c}	14.09 (1.57) ^{d,e}	14.4 (1.57) ^{b,d}	14.89 (1.38) ^{c,e}
Habitation (% not living with both parents)	69.9 ^{b,c}	53.9 ^{d,e}	43.1 ^{b,d}	43.3 ^{c,e}
% Ethnic minority	30.1 ^c	28.7 ^c	41.4	41.4 ^{c,e}
Mean maternal warmth/support (SD)	3.01 (0.76) ^c	3.16 (0.73)	3.01 (0.71) ^f	3.33 (0.65) ^{c,f}
Mean optimism (SD)	18.19 (3.88) ^{a,c}	19.95 (3.47) ^{a,d}	18.54 (3.35) ^{d,f}	20.08 (3.56) ^{c,f}
Mean self-efficacy beliefs (SD)	3.81 (0.72) ^{b,c}	3.93 (0.68) ^e	4.04 (0.68) ^b	4.18 (0.62) ^{c,e}

Groups with identical superscripts differ significantly, $p < 0.05$

get married, and become parents. The stem for these questions was “At what age do you expect to...?” If respondents expected not to experience the described event, they were asked to cross out the answer space.

Self-efficacy beliefs Inspired by domain-specific self-efficacy measures (e.g. Perceived Self-Efficacy subscale from the Student Approaches to Learning; Marsh et al. 2006), a scale assessing domain-specific self-efficacy beliefs was developed. Respondents were asked to rate their confidence in managing the described transition event of the adulthood timetable questionnaire on a five-point Likert-type scale: “I am confident to manage this” (1=does not apply to me, 2=hardly applies to me, 3=partly applies to me, 4=predominantly applies to me, 5=totally applies to me). A mean of the reported confidence was calculated representing the participants’ domain-specific self-efficacy beliefs. Cronbach’s alpha was 0.87.

Emotional and behavioral disturbances EBD were measured using the YSR (Achenbach 1991). The YSR is a self-report instrument for adolescents aged 11 to 18 years measuring both externalizing and internalizing problem behavior. Items were answered on a three-point Likert-type scale (1=not true, 2=somewhat or sometimes true, 3=often or very often true). In the present study, only 61 items were used that compose the internalizing and externalizing problems. In the present study, Cronbach’s alpha was 0.92 (internalizing behavior) and 0.88 (externalizing behavior). As already reported, according to the YSR manual, adolescents whose internalizing and/or externalizing score were in the clinical range (externalizing and/or internalizing T score ≥ 63) were classified as probably emotionally or behaviorally disturbed (Döpfner et al. 1994).

Maternal support Data on maternal support were collected using the “Zürcher Brief Questionnaire for the Assessment of Parental Behaviors” (Reitzle et al. 2001). The 12 items composing the scale warmth/support (e.g., “My mother praises me when I do something

good”) were used and had to be answered on a four-point Likert-type scale (1=never, 2=sometimes, 3=often, 4=always). The internal consistency (Cronbach’s alpha) was 0.93.

Optimism General optimism was assessed using the German adaption of the revised Life Orientation Test (LOT-R) (Glaesmer et al. 2008) with three items measuring optimistic and three items measuring pessimistic attitudes about the future. A sample item is “I am usually optimistic about my future.” The items were answered on a five-point Likert-type scale (1=does not apply to me, 2=hardly applies to me, 3=partly applies to me, 4=predominantly applies to me, 5=totally applies to me). A total score was computed with higher values indicating a more optimistic/less pessimistic attitude (Glaesmer et al. 2008). In the present study, Cronbach’s alpha was 0.47.

Background variables Sociodemographic characteristics were measured using single-item indicators: age, gender, class level, habitation (living with both parents=1 vs. other arrangement=2), ethnic background (the respondent or at least one of his/her parents was born in a country other than Germany; 1=yes vs. 2=no), and parents’ highest educational attainment (1=no parent completed the highest school track vs. 2=at least one parent completed the highest school track).

Results

The mean ages for the expected transition events were 20.83 years (SD=2.99) for moving out, 20.84 years (SD=2.13) for finishing postsecondary education, 21.70 years (SD=3.14) for being full-time employed, 26.89 years (SD=4.12) for marriage, and 27.88 years (SD=4.41) for having a baby. Between 13 % (being full-time employed) and 32 % (marriage) of the respondents did not provide answers on the expected age at transition. Therefore, separate analyses of covariance (ANCOVAs) were computed for each of the five transition events. Logarithms of the expected ages were used because the variable did not follow a normal contribution. The expected timing of the five transition events served as dependent variables, while school type and EBD status were used as independent variables. Gender, age, habitation, ethnic background, optimism, maternal support, and self-efficacy beliefs served as covariates, since the four groups differed in those variables. Power analysis indicated an 81 % chance of detecting an effect size of $\eta_p^2=0.02$.

In contrast to our assumptions, no main effect of school type was found regarding adolescents’ expected timing of the five transition events. A main effect of EBD status ($F(10,343)=6.20, p<0.013, \eta_p^2=0.02$) was only found for the expected timing of “marriage.” Earlier expected ages for marrying were reported by adolescents without EBD. An interaction effect of school type and EBD status ($F(10,438)=5.08, p<0.025, \eta_p^2=0.01$) was statistically significant for the expected timing of “being full-time employed.” Post hoc contrasts showed that students with EBD attending regular schools expected to be full-time employed at a later age than the other three groups. With regard to the covariates, significant effects of self-efficacy beliefs were found concerning “finishing postsecondary education” ($F(10,422)=6.73, p<0.01, \eta_p^2=0.02$), being full-time employed ($F(10,438)=6.33, p<0.012, \eta_p^2=0.01$), “moving out of the parental home” ($F(10,427)=8.05, p<0.005, \eta_p^2=0.02$), and marriage ($F(10,343)=6.34, p\leq 0.012, \eta_p^2=0.02$). Adolescents with higher self-efficacy beliefs expected to achieve these transitions at an earlier age. In addition, female students reported earlier expected ages for

“marrying” ($F(10,343)=7.218, p<0.008, \eta_p^2=0.02$) and “having a baby” ($F(10,351)=5.55, p<0.019, \eta_p^2=0.02$) than their male peers. For the expected timing of moving out of the parental home, effects of ethnic background ($F(10,427)=19.34, p\leq 0.001, \eta_p^2=0.04$) and maternal support ($F(10,427)=9.46, p<0.002, \eta_p^2=0.02$) were statistically significant. Adolescents without an ethnic minority background and adolescents reporting less maternal support expected to move out at an earlier age. Furthermore, a significant effect of “habitation” was found regarding the expected timing of marriage ($F(10,343)=4.92, p<0.027, \eta_p^2=0.01$). Adolescents living in an intact family expected to marry at an earlier age than their peers from non-intact families.

Of the participants, 13.9 % ($n=80$) reported to believe that they would never marry and 12.5 % ($n=70$) reported the same for having a baby. For the other transition events, only 1–2 % did not expect to attain them. Therefore, binary regression analyses could only be computed to search for predictors of never experiencing marriage and parenthood. School type ($B=-0.88$, Wald $\chi^2(1)=6.32, p<0.012$, $\text{Exp}(B)=0.41$), self-efficacy beliefs ($B=1.27$, Wald $\chi^2(1)=30.16, p\leq 0.001$, $\text{Exp}(B)=3.54$), and habitation ($B=0.75$, Wald $\chi^2(1)=5.12, p<0.024$, $\text{Exp}(B)=2.11$) significantly predicted the expectation to remain unmarried throughout the lifetime. Students from special schools were more likely to expect to remain unmarried than other students, as were adolescents not living in an intact family and adolescents reporting lower self-efficacy beliefs. Expecting to stay childless was only predicted by lower self-efficacy beliefs ($B=1.36$, Wald $\chi^2(1)=32.51, p\leq 0.001$, $\text{Exp}(B)=3.90$).

As adolescents with EBD and students from special schools had lower self-efficacy beliefs with regard to mastering the assessed adult transitions, controlling statistically for between-group differences in self-efficacy beliefs might have reduced the chance of finding significant effects of EBD status and school type on the timing and the expected achievement of the five adult transitions. However, repeating the analyses without self-efficacy beliefs as a covariate did not provide any different results regarding possible effects of school type and EBD on the expected timing and achievement of the five transitions (Table 2).

Discussion

This study provides an initial exploration of adolescents’ expected timing of adulthood transitions focusing particularly on the impact that EBD and different school types (special vs. regular school) may have on these expectations. Obtained findings indicate that EBD status and school type have almost no effect on adolescent’s anticipated timing of adulthood transitions or on their expectations not to attain these transitions. The following discussion will start with some general comments on adolescents’ expected timing of transition events, followed by the research questions.

Overall, the expected sequence of work and family transitions found in this sample is congruent to the pattern of actual role transitions and also corresponds to other research results (e.g., Crockett and Beal 2012). Adolescents anticipate experiencing school completion and job entry first, before they marry and have children. Participating adolescents also expect to move out of their parents’ home at about the same age as they finish their postsecondary education. The fact that they assume to obtain full-time employment about 1 year after having finished postsecondary education might reflect their knowledge about youth with low school track diplomas having difficulties on the labor market. The somewhat earlier expected ages of marriage and parenthood found in this sample compared to the actual timing of these events in the general German population might be explained by earlier school-to-work transitions of

Table 2 Between-group differences in expected timing of adulthood transitions

Transition	Students with EBD from special schools Mean age (SD)	Students without EBD from special schools Mean age (SD)	Students with EBD from regular schools Mean age (SD)	Students with EBD from regular schools Mean age (SD)	School type		EBD status		Interaction effect	
					<i>F</i>	<i>df</i>	<i>F</i>	η_p^2	<i>F</i>	η_p^2
Finishing postsecondary education	20.93 (2.34)	20.84 (2.24)	20.97 (2.06)	20.70 (1.91)	0.09	1,422	0.78	0.00	0.21	0.00
Moving out of parents' home	20.17 (3.10)	20.78 (3.20)	20.78 (3.21)	21.43 (2.60)	2.04	1,427	3.62	0.00	0.76	0.00
Being full-time employed	21.49 (3.40)	21.79 (3.15)	22.26 (3.49)	21.49 (2.60)	3.17	1,438	0.01	0.00	5.08*	0.01
Getting married	26.99 (4.75)	27.59 (3.91)	25.83 (3.93)	27.10 (3.68)	0.04	1,314	6.20*	0.00	0.10	0.00
Becoming parents	27.50 (4.70)	27.99 (5.03)	27.56 (3.66)	28.33 (4.16)	2.67	1,351	0.88	0.01	0.08	0.00

SD standard deviation, *EBD* emotional and behavioral disturbances, *F* multivariate test for between-group differences, η_p^2 explained variance

* $p < 0.05$

adolescents from lower school tracks (Diekmann 1990). An early school-to-work transition provides the material means for family formations at an earlier age. Unfortunately, comprehensive data on postschool biographies and the timing of actual role transitions of German adolescents attending special schools for students with EBD and German low school tracks are not available so far. Therefore, a final conclusion about the accordance between expected and actual timing of adulthood transitions cannot be drawn at this point. About 12 % of the respondents expect to remain unmarried and childless. This finding might be based on social changes that took place in Germany and other western countries. Conventional family patterns decreased, and a pluralization of living and relationship patterns emerged (Wagner and Valdés Cifuentes 2014). For example, about 20 % of German women remain childless (Statistisches Bundesamt 2013) and 14.6 % of the 40–50-year-old German population is still unmarried (Lengenger 2011).

Previous findings (Margraf and Pinquart 2015) showed that adolescents with EBD and those attending special schools for students with EBD are less advanced in the attainment of some developmental goals of adolescence than adolescents without EBD or regularly schooled youth. Also, other results underlined poorer adult outcomes of that group in the educational, occupational, and social field (e.g., Newman et al. 2011). However, the present study does not indicate that the disadvantaged initial situation and poorer adult outcomes of youth with EBD and those attending special schools are already reflected in expectations about the timing of adulthood transitions. Neither do they produce a stronger belief that some transitions will be unattainable at all. Only small between-group differences regarding the expected timing of transitions were found. Adolescents with EBD reported later expected ages of marrying which is in accordance with other research results pointing out that adolescents with EBD tend to marry later than peers without EBD (e.g., Newman et al. 2011). In addition, adolescents with EBD from regular schools expressed later ages of being full-time-employed than their peers. This finding might be explained by the theory of social comparison (Festinger 1954) according to which people gather information about themselves by comparing their own status to those of other people in their surroundings. Adolescents with EBD attending regular schools may see themselves in unfavorable positions in relation to their peers without EBD leading to low expectations regarding their future. In addition, they might be less encouraged by their teachers or other persons to master this transition. The present results also show that students from special schools more often expect to remain unmarried compared to regularly schooled students. This difference could not be explained by lower self-efficacy beliefs found for special school students as our analysis had controlled for this variable. Thus, other explanations may play a role, such as a lower perceived value of getting married in students from special schools (Diaz-Gimenez and Giolito 2008). Unfortunately, neither the students' desire to marry nor the schools' ethos (explicit or implicit norms) regarding getting married has been assessed in the present study so that a final conclusion cannot be drawn.

Overall, regarding expectancies about the timing of adulthood transitions, more similarities than differences were found between students with and without EBD and students attending a regular or special school. As the large majority expected to succeed with the transitions at an age that is similar to the actual timing of these transitions in German emerging adults, it seems that students from special schools and students with EBD view their future in an overly optimistic way that does not correspond to their actual poor initial situation and adulthood outcomes. Several factors might have contributed to this finding. On the one hand, one might speculate that the two subsamples from special and low track regular schools were too similar for school-type differences to be detected. Both subsamples can be described as disadvantaged youth coming from families with low SES, difficult family relations, and problematic

behaviors (Bos et al. 2010). If true, both groups should report rather negative expectations about their transitions to adulthood. However, the participants of the present study reported expectations that are similar to national data on the actual timing of adulthood transitions (e.g., Eurostat 2009; Statistisches Bundesamt 2014). On the other hand, the present results may indicate that many young people with EBD tend to downplay or ignore future problems. A positive illusory bias, i.e., the overestimation of own competences and performances, has been observed in previous studies on youths with externalizing problem behavior (e.g., Gresham et al. 1998; Owens et al. 2007). According to the self-protective hypothesis, the overestimation of ones' competences protects people from feelings of incompetence and failure and maintains their self-esteem and psychological well-being at present (Diener and Milich 1997). Additionally, as expectancies affect people's goal strivings (Wigfield and Eccles 2000), positive expectancies can be seen as a precondition for proactive and purposeful behavior and might therefore support adolescents in trying to attain difficult tasks.

Results on gender, ethnic background, maternal support, and habitation are in accordance with previous research results already reported in the "Introduction" section. Higher domain-specific self-efficacy beliefs showed the most consistent and strongest associations with the expectation to succeed and an earlier expected age at transition. These findings are congruent to motivation theories pointing out the important role of self-efficacy beliefs and expectancies for success in individuals' choice and task performance (e.g., Wigfield and Eccles 2000). However, in the present study, self-efficacy beliefs were measured directly related to the transition events which probably increased the size of the association with the assessed outcomes.

Limitations and future directions

Some limitations of the present study should be mentioned. Because studies show high comorbidity rates of internalizing and externalizing problem behaviors (Ihle and Esser 2002), no separate analyses for adolescents with only internalizing, only externalizing, or both problem behaviors were carried out. In addition, only adolescent self-reports were used. However, other sources would be unlikely to provide accurate information on adolescents' expectancies, optimism, or self-efficacy beliefs. Likewise, parents have been found to have difficulties identifying emotional problems of their children (Plück et al. 1997). Also, similar to other studies on the LOT-R, the reliability of that measurement was low (Glaesmer et al. 2008). The expected timing of adulthood transition events was assessed without taking into account how much the participant desired to accomplish the described transition. Furthermore, only maternal support has been assessed despite research showing that paternal support also influences adolescents' well-being and related outcomes (Sheeber et al. 2007).

Only correlative data has been used so that causal conclusions cannot be drawn at this point. Longitudinal data would be needed to test how expectancies and self-efficacy beliefs about the timing of transitions change over adolescence and young adulthood. Finally, we did not test whether expectations may be influenced by characteristics of the school classes, such as by expectations of classmates or the general school ethos.

Conclusion

Despite the mentioned limitations, several conclusions can be drawn. First, the almost absent differences in expectancies about the timing of adulthood transitions between students with

and without EBD and students attending regular and special schools indicate that adolescents with EBD and adolescents attending special schools may have an overly optimistic view of their future. However, their positive expectancies might be functional at least for the time that they start striving to attain adulthood transitions. Positive expectancies are related to individuals' well-being and also function as a driving force motivating someone to engage in purposeful actions (Wigfield and Eccles 2000). Nevertheless, research on the school-to-work transition indicates that overly optimistic aspirations and the inability to downgrade them after initial failures increase the risk for not obtaining an apprenticeship (Tomasik et al. 2009). Thus, for adolescents with EBD and adolescents attending special schools, there are discrepancies between poor adulthood outcomes and rather optimistic expectancies about their transition to adulthood. In this context, two intervention approaches might be considered.

First, in order to improve success with adulthood transitions, personal and external conditions for positive adulthood outcomes must improve. On the one hand, resource-building interventions focusing on individual transitions, such as improving career maturity (Savickas 1999), could be established at schools. Also, broad life skills programs could be helpful to strengthen and promote adolescents' competences, i.e., intrapersonal and interpersonal skills. Those programs aim to improve adolescents' abilities to solve problems and interact adequately, to build up and maintain positive relationships, and to be aware of ones' own strengths and weaknesses (e.g., Weichold and Silbereisen 2014). On the other hand, poor adult outcomes in adolescents with EBD and adolescents from special schools may also be based on the society not adjusting to their needs. For example, prejudice and stigmatization make it difficult for those adolescents to attain a vocational training or occupation (Hofmann-Lun 2011). Reducing external barriers for postsecondary education and labor market entry might assist them in their postschool educational and occupational attainment. In the long run, positive educational and occupational attainment would also have a decisive impact on students' financial independence and family formation.

Second, adjusting ones' expectations and unattainable goals to meet the reality might be another way to reduce the discrepancy between reality and expectations. However, this approach might negatively affect adolescents' well-being and feeling of incompetence. Therefore, coping skills training that focuses on how to cope with lack of success regarding adulthood transitions could be implemented. Active problem solving such as seeking advice and social support, reflecting about possible solutions, and decision-making might be helpful for adolescents with EBD and students from special schools in dealing with unmet expectancies, difficult realities, and stress (Seiffge-Krenke 2000).

With regard to future research, we conclude that data on postschool biographies and adulthood expectations of students with EBD and students attending special schools are needed. For example, longitudinal studies need to be administered that examine whether poor adult outcomes would mainly be found for students with EBD and students attending special schools having later and lower expectancies regarding the transition to adulthood. These studies should also assess the influence of peers and teachers on students' expectations about their transitions to adulthood and their later success with mastering these transitions.

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Current themes of research:

Developmental of children and adolescence with special needs. Transition to Adulthood. Expectations. Emotional and Behavioral Disturbances

Most relevant publications in the field of Psychology of Education:

- Margraf, H., & Pinquart M. (2015). Attainment of developmental tasks in emotionally and behaviourally disturbed adolescents across regular vs. special schools: a four-group comparison. *European Journal of Special Needs Education*, 30(3), 351–366.

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Current themes of research:

Development of children and adolescence with special needs; The role of parenting

Most relevant publications in the field of Psychology of Education:

- Pfeiffer, J.P. Pinquart, M. & Münchow, H. (2012). School type differences in attainment of developmental tasks in students with visual impairment and sighted peers. *European Journal of Psychology of Education*, 27, 389–402.
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Erratum to: Do adolescents with emotional and behavioral disturbances attending schools for special education have lower expectations regarding the transition to adulthood?

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The authors would like to correct the following errors in the publication of the article.

In the Abstract, the sentence “Adolescents with EBD reported later expected ages of marrying and adolescents with EBD attending regular schools expressed later ages of being full-time employed” should read:

Adolescents without EBD reported later expected ages of marrying and adolescents with EBD attending regular schools expressed later ages of being full-time employed.

In the Result section, the sentence “Earlier expected ages for marrying were reported by adolescents without EBD” should read:

Earlier expected ages for marrying were reported by adolescents with EBD.

In the Discussion section, the sentence “Adolescents with EBD reported later expected ages of marrying which is in accordance with other research results pointing out that adolescents with EBD tend to marry later than peers without EBD (e.g., Newman et al. 2011)” should read:

Adolescents with EBD reported earlier expected ages of marrying which is in accordance with other research results pointing out the earlier involvement in dating behavior and romantic relationships of adolescents with EBD (e.g., Cui et al. 2012).

The online version of the original article can be found at <http://dx.doi.org/10.1007/S10212-015-0268-3>.

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The fifth column of Table 2 should read as “Students without EBD from regular schools”.
We apologize for these errors.

Reference

- Cui, M., Ueno, K., Fincham, F., Donnellan, M., & Wickrama, K. (2012). The association between romantic relationships and delinquency in adolescence and young adulthood. *Personal Relationships*, 19(2), 354–366.

7.1.3 Study III (submitted)

Goal Engagement in Adolescents With and Without Emotional and Behavioral Disturbances Attending Different School Types

Zielverfolgung von Jugendlichen: Welche Rolle spielen emotionale und Verhaltensauffälligkeiten sowie die Schulform?

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Abstract

Adolescents with emotional and behavioral disturbances (EBD) and adolescents attending special schools often show poor academic competence and problems with making career choices. In this context, processes of goal-striving have not been assessed systematically even though they are related to success and failure in goal attainment (Heckhausen, Wrosch, & Schulz, 2010). Thus, the present longitudinal study compared the levels of domain-specific goal engagement/disengagement and the effects of goal engagement on the attainment of academic competence and career choice of 257 adolescents (age 12 to 18) with and without EBD attending regular vs. special schools. The levels of goal engagement did not differ as a function of EBD status or school type. However, adolescents with EBD reported higher levels of goal disengagement than adolescents without EBD. For all groups of adolescents, goal engagement at first measurement predicted stronger progress in the perceived attainment of academic competence at the 1-year-follow-up. Conclusions are drawn on how to promote successful development of students with EBD from regular or special schools.

Keywords: Goal engagement; Adolescence; Emotional and Behavioral Disturbances; Special Schools vs. Regular Schools

Zusammenfassung

Jugendliche mit emotionalen und Verhaltensauffälligkeiten (EV) sowie Förderschüler fallen häufig durch mangelhafte Schulleistungen und Schwierigkeiten im Treffen einer Berufswahl auf (e.g., Newman et al., 2011). Zielverfolgungsprozesse wurden in diesem Kontext bisher nicht untersucht, obwohl diese mit einer erfolgreichen Zielerreichung assoziiert sind (Heckhausen, Wrosch, & Schulz, 2010). Daher vergleicht die vorliegende Längsschnittstudie die bereichsspezifische Zielverfolgung sowie deren Effektivität in Bezug auf die Entwicklung der wahrgenommenen schulischen Kompetenz und das Treffen einer Berufswahl von 257 Regel- und Förderschülern (12 bis 18 Jahre alt) mit und ohne EV. Während das Ausmaß der Zielverfolgung weder in Abhängigkeit des EV-Status noch in Abhängigkeit des Schultyps variierte, berichteten Jugendliche mit EV eher als Jugendliche ohne EV Ziele aufzuschieben. Eine höhere Zielverfolgung zum ersten Messzeitpunkt sagte für alle Jugendliche einen stärkeren Fortschritt im Erreichen akademischer Kompetenz im 1-Jahres-Follow-up vorher. Es wird diskutiert, wie eine erfolgreiche Zielerreichung von Jugendlichen mit EV gefördert werden kann.

Schlüsselwörter: Zielverfolgung; Jugend; Emotionale und Verhaltensauffälligkeiten; Förder- vs. Regelschulen

Goal Engagement in Adolescents With and Without Emotional and Behavioral Disturbances Attending Different School Types

Emotional and behavioral disturbances (EBD) are a common phenomenon during adolescence. In Germany, a prevalence rate of approximately 17% has been reported for EBD (Barkmann & Schulte-Markwort, 2012). Adolescents with EBD are characterized by externalizing behavior such as impulsiveness and aggression, and/or emotional symptoms like depression and anxiety (Myschker & Stein, 2014). Often they also exhibit poor academic performances and low social abilities (Kauffman, 2001), and live in an adverse family environment characterized by a low socioeconomic status (SES) or a broken home (Bele, Bodhare, Valsangkar, & Saraf, 2013).

German adolescents with EBD are either schooled in a special school for adolescents with EBD or in one of three regular school tracks depending on their academic achievement in elementary school. Whether students with EBD attend a regular or special school is decided by the educational authority. Their final decision is based on a recommendation given by a special education teacher who had tested the student's need for special education. However, there are no predefined cut-offs in standardized measures assessing EBD that determine the given recommendation (Kultusministerkonferenz, 2000). In 2012, 6.6% of German students were in need for special education (Kultusministerkonferenz, 2014). About 14% of them were categorized as having special needs in the field of EBD. Approximately 47% of students with EBD attended regular schools while 53% were schooled in separate special schools for students with EBD (Kultusministerkonferenz, 2014).

The attainment of developmental goals of adolescence might be especially challenging for young people with EBD and for special school students, as problematic behaviors and/or unfavorable contextual factors may restrict their chances of success. As a matter of fact, adolescents with EBD and adolescents from special schools have been found to be particularly less successful in their academic attainment and school-to-work transition than adolescents without EBD and regular schooled students (e.g., Klemm, 2010; Newman et al., 2011). One possible explanation for those poor outcomes might be differences in goal-striving between adolescents with and without EBD attending different school types. Thus, the present study analyzed goal-striving processes with regard to the attainment of academic competence and career choice between adolescents with and without EBD attending regular or special schools.

Academic Competence and Career Choice in Adolescents With EBD and in Students Attending Special Schools

The attainment of academic competence and career choice are essential in the context of adolescents' post-school transition (e.g., Patton, Creed & Muller, 2002). Adolescents' academic performance during high school paves the way for their postsecondary education and opportunities on the labor market. For example, better school grades are associated with a lower risk of later unemployment and higher levels of job satisfaction (Pinquart, Juang, & Silbereisen, 2003). Similarly, Patton et al. (2002) reported that career maturity is a significant predictor of adolescents' successful school-to-work transition. Also, according to the developmental task concept of Havighurst (1948) both academic competence and career choice are important goals individuals have to attain during adolescence.

Research results in this context suggest that adolescents with EBD are less successful than their peers without EBD with regard to the attainment of academic competence and career choice. They have elevated rates of dropping out of school as well as low rates of graduating from high-school (Newman et al., 2011). Also, they are often characterized by high rates of unemployment and low rates of postsecondary education and training after graduation (e.g., Frank, Sitlington, & Carson, 1995; Newman et al, 2011).

In research on school-to-work transitions of students with EBD, school type differences have rarely been assessed. Also, research distinguishing between different types of special educational needs is limited. However, different school types and thus distinct learning environments and experiences may also account for differences in the attainment of academic competence and career choice between adolescents with and without EBD. For example, special schools for adolescents with EBD are often marginalized institutions (Bos, Müller, & Stubbe 2010) whose students frequently suffer from stigmatization, labelling, and social isolation (Bos, et al., 2010; Schumann 2008). Also, disruptive behaviors that a high percentage of students from special schools show disturb the academic progress, impede social functioning, and threaten a positive school climate (Jull, 2008). Regarding their academic achievement, about 76% of German students from special schools for students with heterogeneous disabilities leave their school without a diploma compared to 8% of students from the regular low school track (Klemm, 2010). Chances to attain a vocational training or an occupation are low for those individuals as only every sixth German young adult without a school diploma finished a vocational training (BIBB, 2011). Gaupp, Großkurth, and Lex (2008) reported that a higher number of graduate students from special schools for students

with EBD compared to regular low track graduate students had not decided what they wanted to do after graduation (14% vs. 6%).

Goal-Striving Processes Related to Academic Competence and Career Choice

In sum, research results suggest that adolescents with EBD and adolescents from special schools for students with EBD are characterized by unfortunate outcomes regarding their academic and occupational achievement, and career choice. However, previous studies have only focused on the current level of attainment without considering reasons for the lower attainment of students with EBD and those from special schools. In this context, processes of goal-striving have not been assessed systematically even though they are closely related to success and failure in goal attainment (Heckhausen, Wrosch, & Schulz, 2010) and might therefore explain differences in the attainment of academic competence and career choice between adolescents with and without EBD attending special or regular schools.

Based on the life-span theory of control by Heckhausen and Schulz (1993), processes of goal-striving contain two components: improvement/maintenance processes (goal engagement) and reorientation processes (goal disengagement). Goal engagement is directed at proactively changing one's environment and self when control opportunities are available. This process includes the focused investment of personal resources (e.g., energy and effort) in attaining the goal, the constant reinforcement of commitment to that goal, and the employment of external help if needed (Heckhausen & Schulz, 1993). When goals seem unattainable and when confronted with repeated failure in attaining a goal or with serious constraints, reorientation processes need to be employed. These include disengaging from a goal (e.g., downgrading the importance of the goal) and self-protection against devaluation resulting from failing in attaining the desirable goal (e.g., positive reappraisal; Heckhausen & Schulz, 1993).

Several studies were conducted to analyze the relationship between adolescents' goal engagement and goal attainment. For example, research suggests that active engagement in career exploration and planning is positively associated with career commitment and decidedness in adolescents (Creed, Prideaux, & Patton, 2005). While some studies reported overall positive associations between goal engagement and goal attainment (e.g., Määttä, Staatin, & Nurmi, 2002; Schindler & Tomasik, 2010; Wiese, Freund, & Baltes, 2000) others found such an association only in subgroups or for some of the assessed goals (e.g., Haase, Heckhausen, & Köller, 2008; Heckhausen, Chang, Greenberger, & Chen, 2013). Haase and colleagues (2008) showed that German girls benefited from goal engagement while boys did

not need large levels of goal engagement for finding an apprenticeship, probably because of boys' general high chances to attain an apprenticeship. In the study of Heckhausen et al. (2013) higher engagement with educational goals was related to a higher educational status 2 and 4 years after graduation whereas occupational goal engagement was not associated with career-related outcomes. The authors suggested that career-related outcomes might rely more on postsecondary educational attainment than on occupational goal engagement (Heckhausen et al., 2013).

Internal and external factors also appear to affect the employment of goal engagement, and therefore the success in attaining various developmental goals (Massey, Gebhardt, & Garnefski, 2008). On the one hand, higher internal resources (e.g., resilience and a positive outlook on life) have been found to be related to a higher success in striving for and meeting a chosen goal (e.g., Messersmith & Schulenberg, 2010). On the other hand, adverse socioeconomic factors, internalizing symptoms, and beliefs of low ability and low self-efficacy have been reported to negatively affect ones' goal-striving (Dickson & McLeod, 2004; Massey et al., 2008). Another important factor in this context is the attainability of a goal i.e. the extent to which a person faces favorable or unfavorable conditions for the attainment of a certain goal, such as time, opportunity, and resources (Brunstein, 1993). The interaction of goal engagement and goal attainability has been found to predict progress in goal achievement (Brunstein, 1993).

Compared to adolescents without EBD and adolescents from regular schools, adolescents with EBD and adolescents from special schools are often characterized by adverse internal and external factors that might restrict their goal engagement. However, the employment of goal engagement and goal disengagement has neither been studied in adolescents with EBD nor in adolescents from special schools. Therefore, our first research question asked whether adolescents with EBD and students from special schools might differ from adolescents without EBD and from students attending regular schools in their goal engagement/goal disengagement regarding the attainment of academic competence and career choice. Given their lower success in the academic and career field adolescents with EBD and adolescents from special schools might engage less or give up earlier from attaining academic competence and making career choices.

Just as the employment of goal engagement seems to be related to individual internal factors and to the attainability of a desired goal, the effectiveness of goal engagement might be associated to those conditions as well (Hall, Chipperfield, Heckhausen, & Perry, 2010; Wrosch, Schulz, & Heckhausen, 2002). As adolescents with EBD and students from special

schools tend to have fewer cognitive and social resources and may face more barriers in the process of goal attainment (Bele et al., 2013; Bos et al., 2010; Hofmann-Lun, 2011; Kauffman, 2001), our second research question asked whether goal engagement of adolescents with EBD and adolescents from special schools has lower effects on progress in goal attainment when compared to adolescents without EBD or adolescents from regular schools.

In sum, the present study analyzes two research questions: First, do adolescents with EBD and adolescents from special schools report lower levels of goal engagement and higher levels of goal disengagement regarding the attainment of academic competence and career choice than adolescents without EBD and students attending regular schools? Second, does goal engagement have lower effects on change in goal attainment in adolescent with EBD and students from special schools when compared to adolescents without EBD and students from regular schools?

Methods

Participants

The data were gathered using eight German schools for special education that focus on adolescents with EBD and two regular schools from the low school track. Due to their small sizes, larger numbers of special schools were needed for comparisons. Regular low track schools were chosen for comparison because both school types offer their students the opportunity to graduate with a low school track diploma. Data were collected during class hours. All students were invited to fill out the questionnaire as long as their parents did not object to their participation.

At the first measurement 455 students from grade six to nine (70% male) took part in the survey. At the one-year-follow-up 257 students (66% male) agreed to participate (response rate: 56%; special school: 51%, regular school: 62%). The high prevalence of school-absenteeism at low-track and special schools (e.g., Gängler & Wiere, 2005; Wagner, Dunkake, & Weiß, 2004) explains, in part, the large number of students not having participated in the longitudinal analysis. Also, teachers from both school types reported a high fluctuation and change of their student body over the year. Dropout analysis showed that the participants of the longitudinal study were slightly younger ($M=13.82$ years vs. $M=14.30$ years; $F(1,453)=15.19$, $p\leq.001$, $\eta_p^2=.03$) than those who dropped out of the study. The two groups did not differ from each other with regard to other socio-demographic characteristics such as gender, ethnic background, or habitation or with regard to goal attainment at T₁.

However, with concern to goal-striving processes those adolescents who dropped out of the study showed less goal engagement regarding academic competence at T_1 ($M=32.92$ vs. $M=34.67$, $F(1,425)=7.08$, $p<.01$, $\eta_p^2=.02$). This finding is not surprising since adolescents engaging little in attaining academic competence are at risk for not meeting scholastic performance goals, dropping out of school, and showing little motivation to attend school at all.

Of the longitudinal sample, 124 adolescents attended special schools and 133 were from regular schools. The participants belonged to the EBD-subsample if their internalizing and/or externalizing T -score of the Youth Self-Report (YSR) was at least 63 (Döpfner, Berner, & Lehmkuhl, 1994). Thus, the special school sample was constituted of 72 adolescents with EBD and of 52 without EBD while the regular school sample included 55 adolescents with EBD and 78 without EBD. The four groups (students without EBD from special schools; students with EBD from special schools; students without EBD from regular schools; students with EBD from regular schools) differed significantly with regard to age ($F(3,252)=3.08$, $p<.05$), gender ($\chi^2(3)=29.90$, $p\leq.001$), and habitation ($\chi^2(3)=18.47$, $p\leq.001$; see Table 1). Since 48% of the participants did not provide any information on parental education, this variable was not used in further analyses.

[Insert Table 1]

Measures

Goal attainment (T_1 and T_2). At both waves the perceived attainment of academic competence (*Get good grades*) and career choice (*Choose a future profession*) was assessed using a modified version of the Developmental Task Questionnaire (DTQ, Pinquart & Pfeiffer, 2014). On a 4-point Likert-type scale the adolescents provided information on their perceived attainment of each developmental task: “Have you already attained this goal?” (1 = no, 2 = rather no than yes, 3 = rather yes than no, 4 = yes). Support for the validity of the measure was reported in a previous study (reference blinded for review).

Goal-striving processes (T_1). Adolescents’ goal-striving processes were assessed using an adapted version of the Optimization through Primary and Secondary Control (OPS) scales (Heckhausen, Schulz, & Wrosch; 1998). Goal engagement and goal disengagement were separately assessed for both developmental goals. Goal engagement was measured using 9-items, while the goal disengagement scale consisted of 6 items. The respondents answered all items on 5-point Likert-type scales from ‘1 = definitely not true’ to ‘5 = exactly true’ separately for the two goals. Sample items were “I make a big effort in order to attain this

goal” (goal engagement) and “If I do not attain this goal, I postpone it” (goal disengagement). Goal disengagement was defined as the postponement of goals rather than their abandonment. For each scale, mean scores were computed. In the present study, Cronbach’s alpha for goal engagement was .81 (academic competence) and .90 (career choice) and for goal disengagement .66 (academic competence) and .71 (career choice).

Emotional and behavioral disturbances. EBD were assessed using the YSR (Achenbach, 1991). The YSR is a self-report instrument for adolescents aged 11 to 18 years measuring both externalizing and internalizing problem behavior. Items were answered on a 3-point Likert-type scale (1 = not true, 2 = somewhat or sometimes true, 3 = often or very often true). In the present study only 61 items were used that compose the internalizing and externalizing problems. Cronbach’s alpha in the present study was .92 (internalizing problems) and .89 (externalizing problems). According to the YSR manual, adolescents whose internalizing and/or externalizing score were in the clinical range ($T\text{-score} \geq 63$) were classified as probably emotionally or behaviorally disturbed (Döpfner et al., 1994).

Background variables. Socio-demographic characteristics were measured using single-item indicators: age (in years), gender, school type (1 = special school vs. 2 = regular school), habitation (1 = living with both parents vs. 2 = not living with both parents), ethnic background (the respondent himself/herself or at least one of his/her parents were born in a country other than Germany; 1 = yes vs. 2 = no), and parents’ highest educational attainment (1 = no parent completed the highest school track vs. 2 = at least one parent completed the highest school track).

Results

As shown in Table 2, participants reported moderate to high levels of goal engagement and moderate levels of goal disengagement. *T*-tests for paired samples indicate that the four groups of adolescents showed significantly higher levels of goal engagement than disengagement ($t=6.22$ to 10.52 , $p \leq .001$).

Next, multivariate analyses of covariances (MANCOVAs) were computed to compare the four groups with regard to their goal-striving processes. Goal engagement and goal disengagement served as dependent variables while school type and EBD status were used as independent variables. Age, gender, and habitation were inserted as covariates. Regarding goal engagement, there were no effects of school type and EBD status. With concern to goal disengagement, a main effect of EBD status was found for academic competence ($F(1,235)=11.32$, $p \leq .001$, $\eta_p^2=.05$) as well as for career choice ($F(1,235)=4.44$, $p < .05$,

$\eta_p^2=.02$). Adolescents with EBD reported more goal disengagement compared to adolescents without EBD (academic competence: $M=3.04$ vs. $M=2.67$; career choice: $M=2.91$ vs. $M=2.66$). No school type differences were detected for goal disengagement. Additional analyses revealed that the tendency to employ goal engagement rather than goal disengagement was weaker in adolescents with EBD compared to adolescents without EBD (academic competence: $F(1,235)=9.82, p<.01, \eta_p^2=.04$; career choice: $F(1,235)=10.25, p<.01, \eta_p^2=.04$)

Second, we computed two regression analyses with the perceived goal attainment at wave 2 as criterion variables. Goal attainment at wave 1, goal engagement, EBD status, school type, the interaction of school type and goal engagement, and the interaction of EBD status and goal engagement served as predictors. Age, gender, and habitation were included as control variables. Power analysis indicated a 95% chance of detecting an effect size of $\eta_p^2=.06$. The prediction model for academic achievement was statistically significant ($F(9, 230)=3.90, p\leq.001$) and accounted for approximately 13% of the variance of academic achievement at T₂. The prediction model for career choice was also statistically significant ($F(9, 232)=3.79, p\leq.001$) and accounted for about 13% of the variance of academic achievement at T₂. In both regression analyses goal attainment at wave 1 predicted goal attainment at wave 2 (academic competence: $\beta=.23, p\leq.001$; career choice: $\beta=.30, p\leq.001$). Only goal engagement regarding academic competence predicted stronger progress in perceived goal attainment at wave 2 ($\beta=.18, p<.01$). No effect of school type, EBD status, and no interaction effect of school type and EBD status with goal engagement was found for the attainment of academic competence and career choice.

[Insert Table 2 and 3]

Discussion

The present study examined whether low attainment of academic achievement and elevated problems with career choice as often found in adolescents with EBD and adolescents from special schools could be explained by differences in processes of goal-striving and/or by differences in the effectiveness of goal engagement. We found that adolescents with EBD reported significantly more goal disengagement regarding both goals than adolescents without EBD. Independent from group membership, goal engagement predicted stronger progress in the perceived attainment of academic competence at the 1-year-follow-up. The discussion will start with reported differences between groups in goal-striving processes and continue with

reported differences in the effectiveness of goal engagement on goal attainment before coming to a conclusion.

With concern to group differences in goal engagement and goal disengagement we found that adolescents with EBD reported significantly higher levels of goal disengagement regarding the attainment of both developmental goals than adolescents without EBD. In line with this result, the clear preference to employ goal engagement strategies was less pronounced in adolescents with EBD than in adolescents without EBD. Heckhausen and Schulz (1993) emphasized the primacy of goal engagement. Individuals usually prefer goal engagement over disengagement as it allows them to form their environment to suit their needs and abilities (Heckhausen & Schulz, 1993). However, low chances of success in finding a vocational training or occupation and limited resources supporting their academic achievement and career choice might have caused adolescents with EBD to employ more goal disengagement and thus reducing the relatively stronger preference for goal engagement. However, we have to be aware that the goal disengagement scale assessed adolescents' postponement of goals rather than their abandonment. The focus on postponing rather than abandoning goals may, in part, explain the fact that elevated levels of goal disengagement of students with EBD were not accompanied by reduced absolute levels of goal engagement. Thus, adolescents with EBD may postpone their goals only for a short time interval or may replace postponed goals soon by alternative goals they could strive for.

No school type differences were found regarding goal engagement and goal disengagement. One might suggest that the statistical control for EBD status had reduced the chances of finding school type differences in goal-striving. However, additional MANCOVAs using only school type as independent variable did not yield different results. Thus, our results indicate that school type differences in academic success and the school-to-work transition (Klemm, 2010) could not be explained by differences in the levels and effects of goal engagement, at least with regard to the goals assessed in the present study. Two factors might have contributed to that outcome. First, the attainment of academic competence and career choice are highly normative age-associated developmental goals and might be similarly important for students from both school types (Havighurst, 1948). Second, engaging in the attainment of academic competence and career choice might be equally supported and promoted in special and regular low track schools. For example, both school types underline the importance of vocational preparation by integrating this subject into the school curriculum (e.g., Hofmann-Lun, 2011).

In contrast to suggestions that adolescents with EBD and adolescents from special schools might benefit less from active goal engagement than their peers without EBD and adolescents from regular schools, the present study indicates that all groups of students may benefit to the same extent from goal engagement with regard to the perceived achievement of academic competence. This finding is encouraging as it emphasizes the usefulness of goal engagement in the attainment of academic competence even for adolescents who are characterized by elevated risk for poor scholastic outcomes.

No effect of goal engagement on progress with career choice was found. Several factors might have contributed to this outcome. First, the focal theory of Coleman (1978) suggests that different developmental tasks come into focus at different ages, in the sense of being most prominent, and are tackled one at a time. Deciding on one's future occupation might not have been in the focus of some younger participants yet and/or many adolescents may already have made career choices before the start of our study. The latter argument is in line with our finding that the participants already reported high levels of goal attainment at the first measurement. Therefore, they might not have benefited from further goal engagement. Second, rather than actively engaging in career choice, some adolescents may have followed the suggestion of their parents or other persons, thus developing a foreclosed occupational identity (Berríos-Allison, 2005). For those adolescents, goal engagement would not predict the development of a career choice. Third, our assessment of goal engagement might not have been specific enough to measure some forms of engagement with career-related actions such as doing an internship or using career guidance.

As neither between-group differences in levels of goal engagement nor in the effectiveness of goal engagement could explain the poorer academic competence and career choice of adolescents with EBD and students from special schools, other potential factors need to be analyzed. For example, students' general mental ability might be a more substantial predictor for the attainment of academic competence (Laidra et al., 2007) as adolescents with EBD and students from special schools for students with EBD are often characterized by a poor academic achievement and learning disabilities (Kauffman, 2001). Also, a warm and supportive family climate has been found to be positively related to career exploration and development (Whiston & Keller, 2004). However, adolescents with EBD and students from special schools often derive from families with a low SES and difficult relations between family members (Bele et al., 2013; Bos et al., 2010). In this context, future studies should take class (e.g., group dynamics) and school (e.g., school climate) differences into

consideration as those factors might also have an impact on the developmental success of adolescents with EBD and students from special schools.

Limitations

Several limitations of the present study are outlined. First, only adolescent self-reports were used. However, parents and teachers tend to have difficulties identifying their children's emotional problems (Plück et al., 1997). While teachers' judgment accuracy for students' academic achievement has been found to be substantial (Südkamp, Kaiser, & Möller, 2012), it would be difficult for teachers to accurately judge their students' exploration of occupational careers. Nonetheless, future studies should include other sources of information such as parent and teacher reports and observational data, where possible. Second, similar to other studies successfully using the adapted OPS scales (Pfeiffer & Piquart, 2011) the reliability of the goal disengagement scales was low. Third, the perceived attainment of academic competence and career choice was assessed on the basis of single items. However, multi-item scales are not available for most developmental tasks. Additional analyses measuring the attainment of developmental tasks more broadly and concretely are needed. Fourth, the sample size only allowed for detecting moderate statistical effects.

Conclusions

Despite these limitations, we conclude that poor outcomes in the academic and occupational field of adolescents with EBD and of adolescents attending special schools compared to adolescents without EBD and regularly schooled adolescents could neither be well explained by between-group differences in levels of goal engagement nor by between-group differences in the effectiveness of goal engagement. Thus, future studies should test for alternative explanations of the lower success of students with EBD and those from special schools, for example the role of characteristics of the family (Whiston & Keller, 2004), students' cognitive resources as well as social barriers and prejudice. The identification of variables explaining the lower success of adolescents with EBD and students from special schools is relevant for planning measures aimed at overcoming these differences.

Research has shown lower attainment of developmental goals in adolescents from special schools and in adolescents with EBD (reference blinded for review). Nevertheless, those adolescents do not differ from peers with regard to their overall goal engagement and the usefulness of goal engagement in the attainment of academic competence. Therefore, the present results indicate that they might need to engage more persistently and more efficiently

in attaining developmental goals than adolescents without EBD and students from regular schools. Regarding the attainment of career decidedness adolescents with EBD and students attending special schools might benefit from career choice interventions. Meta-analyses have demonstrated the effectiveness of those interventions (e.g., Brown and Ryan Krane, 2000) and identified elements necessary for interventions to be successful. Based on results of those meta-analyses and the cognitive information processing approach, Hirschi and Läge (2008) developed and evaluated a career workshop to promote career choice readiness in young adolescents. After the intervention, participants showed a significant increase in career decidedness, career planning, career exploration, and vocational identity. To foster learning and thus the attainment of academic achievement, a review of meta-analyses (Grünke, 2006) emphasized a set of methods that seem to be the most effective for fostering academic achievement: direct instructions, strategy instruction, self-instruction trainings, peer tutoring, and computer-assisted instructions. Training teachers to adequately use these methods might promote students' learning and academic achievement.

As the present study addressed only two developmental goals, future studies should also analyze goal engagement and disengagement with regard to other developmental goals, such as peer group integration, that have been found to be difficult for students with EBD and for students from special schools (reference blinded for review). Differences in the desire to attain a certain goal might also lead to systematic differences in adolescents' goal engagement/disengagement and should therefore be taken into account in future research.

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Table 1

Characteristics of the Sample (at Wave 1).

Group	Students with EBD from special schools	Students without EBD from special schools	Students with EBD from regular schools	Students without EBD from regular schools
Gender (% male)	84.6% ^{ad}	81.9% ^{bc}	50.9% ^{ac}	51.3% ^{bd}
Mean Age (<i>SD</i>)	13.54 (1.16) ^a	14.00 (1.28)	13.96 (1.36) ^a	14.10 (1.16)
Habitation (% not living with both parents)	70.8% ^{ad}	69.2% ^{bc}	41.8% ^{ac}	43.6% ^{bd}
% ethnic minority	25.0% ^a	28.8%	43.6% ^a	38.5%
<i>N</i>	72	52	55	78

Note: EBD = emotional and behavioral disturbances, Groups with identical superscripts differ significantly, $p < 0.01$

Table 2

Between-Group Differences in Goal-Striving Processes

Goal-Striving Process	Students with EBD from special schools	Students without EBD from special schools	Students with EBD from regular schools	Students without EBD from regular schools	School type		EBD status		Interaction effect	
					<i>F</i>	<i>df</i>	<i>F</i>	<i>df</i>	<i>F</i>	η_p^2
	Mean (<i>SD</i>)	Mean (<i>SD</i>)	Mean (<i>SD</i>)	Mean (<i>SD</i>)						
Academic competence										
Goal engagement	3.77 (.76)	3.75 (.75)	3.85 (.75)	3.98 (.75)	2.24	1,235	.34	1,235	.63	.00
Goal disengagement	3.01 (.86)	2.59 (.85)	3.07 (.85)	2.76 (.85)	.92	1,235	11.32***	1,235	.22	.00
Career choice										
Goal engagement	3.75 (.94)	3.87 (.93)	3.82 (.93)	4.07 (.94)	.93	1,235	2.45	1,235	.40	.00
Goal disengagement	2.96 (.93)	2.59 (.92)	2.85 (.92)	2.73 (.92)	.01	1,235	4.44*	1,235	1.13	.01

Note: *SD* standard deviation, EBD = emotional and behavioral disturbances, *F* multivariate test for between-group differences, η_p^2 explained variance, * $p < 0.05$,

*** $p \leq 0.001$

Table 3

Predictors of Perceived Attainment of Developmental Goals.

Variables	Academic competence		Career choice	
	<i>B</i>	β	<i>B</i>	β
Goal attainment at wave 1	.22***	.23	.30***	.30
EBD status	.02	.02	.01	.00
School type	.09	.06	.15	.07
Goal engagement	.02**	.18	.05	.04
Goal engagement x EBD status	.07	.03	.14	.06
Goal engagement x school type	-.02	-.01	-.25	-.10
Age	.03	.05	-.02	-.02
Gender	-.05	-.03	.07	.03
Habitation	-.03	-.02	.00	.00
Constant	1.31*		1.77*	
<i>R</i> ²	.13		.13	

Note. $\beta(B)$ (un)-standardized regression coefficient, * $p < 0.05$, ** $p \leq 0.01$., *** $p \leq 0.001$

7.2 Questionnaires

Liebe Schülerin, lieber Schüler,

Vielen Dank, dass Du Dich bereiterklärst hast bei meiner Studie mitzumachen. Damit hilfst Du mir sehr!

Auf den folgenden Seiten erwarten Dich zum einen Fragen, die Deine Person, betreffen. Damit sind Fragen zu Zielen und Erwartungen, die Du über die Zukunft hast, gemeint sowie Fragen zu Deiner Persönlichkeit, Deinen Verhaltensweisen und Deinen Einstellungen. Zum anderen folgen Fragen zu Deiner Familie und Deinen Eltern, z.B. über die Atmosphäre in Deiner Familie sowie über das Erziehungsverhalten Deiner Eltern. Bitte lies Dir jede Frage sorgfältig durch und beantworte sie.

Kreuze bitte immer **nur eine Antwort an** und **lass keine Frage aus**. Es interessiert Deine eigene Antwort auf jede Aussage. **Es gibt also keine richtigen oder falschen Antworten!** Wenn Du feststellst, dass Du doch was anderes ankreuzen wolltest, obwohl Du schon angekreuzt hast, dann korrigiere bitte indem Du einen Kreis um die „alte“ Antwort machst und dann die für Dich „neue“ Antwort ankreuzt.

Selbstverständlich gehe ich mit **allen Angaben streng vertraulich** um. Es wird niemand außer mir und meinen wissenschaftlichen Mitarbeitern/Hilfskräften (also kein Lehrer, kein Elternteil und keine andere Person) Deinen ausgefüllten Fragebogen zu sehen bekommen. **Die Befragung ist außerdem anonym**. Ich frage nicht nach Deinem Namen oder Deiner Adresse. Du kannst jederzeit, ohne einen Grund zu nennen, abbrechen, wenn Du das möchtest. Den Fragebogen auszufüllen ist keine Pflicht und wird auch nicht benotet. Falls Dir eine Frage zu persönlich wird bzw. Dir zu nahe geht und es Dir sehr unangenehm wäre sie zu beantworten, dann kannst Du sie auch gerne auslassen. Wenn Du während des Ausfüllens noch Fragen hast, dann melde Dich bitte, damit Deine Mitschülerinnen und Mitschüler nicht gestört werden.

Zunächst möchte ich jedoch, dass Du einen speziellen Code ausfüllst, da ich vermutlich im nächsten Jahr noch einmal vorbeischauchen möchte und die ausgefüllten Antworten aller Schülerinnen und Schüler mit dem Vorjahr vergleichen will.

Der Code besteht aus folgendem Muster: Schreibe bitte in das erste Kästchen den **ersten Buchstaben des Vornamens Deiner Mutter**, in das zweite Kästchen den **ersten Buchstaben Deines Vornamens** und in die vier weiteren Kästchen die **Ziffern für Deinen Geburtstag und Deinen Geburtsmonat**.

Wenn zum Beispiel die Mutter Martina und der Junge Felix heißt und wenn Felix am 01. April Geburtstag hat, lautet der Code:

M	F	0	1	0	4
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Dein Code:

--	--	--	--	--	--

Viel Spaß beim Ausfüllen!

Zunächst einige kurze Angaben zu Deiner Person

1. Dein Alter _____ Jahre
2. Dein Geschlecht ☐ männlich ☐ weiblich
3. In welche Klasse gehst Du? _____

4. Deine letzte Zeugnisnote in

Mathematik	
Geschichte	

Deutsch	
Englisch	

5. Bei wem wohnst Du? ☐ bei meinen Eltern
☐ bei meiner Mutter
☐ bei meinem Vater
☐ bei Pflegeeltern
☐ im Heim
6. Sind Du oder Deine Eltern (oder ein Elternteil) außerhalb von Deutschland geboren?
☐ Ja ☐ Nein
7. Der Schulabschluss Deiner Eltern:
☐ keinen Abschluss ☐ Hauptschulabschluss ☐ Realschulabschluss
☐ Abitur/Fachabitur ☐ Ausbildung ☐ Hochschulabschluss
☐ keine Ahnung
8. Hast Du gerade eine Partnerschaftsbeziehung? ☐ Ja ☐ Nein
8. a) Geht Dein/e Partner/in auf dieselbe Schule wie Du? ☐ Ja ☐ Nein
9. Was würdest Du sagen, wie viele enge Freunde Du hast? _____
10. Gehörst Du derzeit einer Gruppe von Gleichaltrigen an? ☐ Ja ☐ Nein

10. a) **Wenn Du zu einer Gruppe von Gleichaltrigen dazugehörst**, bist Du dann eher jemand der

- ☐ bestimmt, was gemacht wird
☐ dabei ist
☐ am Rande steht?

10. b) **Wenn Du zu einer Gruppe von Gleichaltrigen dazugehörst**, besteht diese Gruppe

- ☐ vor allem aus Schülern Deiner Schule
☐ vor allem aus anderen Jugendlichen
☐ aus Schülern Deiner Schule und anderen Jugendlichen?

Überprüfe Deine Angaben auf dieser Seite noch einmal und blättere dann weiter auf die nächste Seite

Auf der nächsten Seiten geht es um Lebensziele, die viele Jugendliche haben. Hast du das Ziel schon erreicht? Die Antworten reichen von „1“ = **Nein**, „2“ = **Eher nein**, „3“ = **Eher ja** bis „4“ = **Ja**.

	Ich habe das schon erreicht!			
	Nein	Eher nein	Eher ja	Ja
1. Zu einer Gruppe von Jugendlichen in meinem Alter dazugehören.	①	②	③	④
2. Meinen Körper so zu akzeptieren, wie er ist.	①	②	③	④
3. Klare Vorstellungen darüber haben, wie ich mein Leben gestalten will (z.B. Familie, Beruf, Wohnort etc.).	①	②	③	④
4. Unabhängig von meinen Eltern sein.	①	②	③	④
5. In der Schule gute Noten bekommen.	①	②	③	④
6. Wissen, welchen Beruf ich später mal ergreifen will.	①	②	③	④
7. Wissen/Fähigkeiten in der Schule erwerben, die für meinen späteren Beruf wichtig sind.	①	②	③	④
8. Meine Stärken und Schwächen kennen (wissen was ich gut & was ich schlecht kann).	①	②	③	④
9. Eine Partnerschaftsbeziehung haben.	①	②	③	④
10. Einen guten Freund/in haben, mit dem/der ich über fast alles reden kann.	①	②	③	④
11. Klare Vorstellungen haben, was man als Mann/Frau später von mir erwartet.	①	②	③	④
12. Sozial verantwortungsvoll handeln (im Handeln nicht nur an das eigene Wohl denken, sondern auch an das Wohl der anderen).	①	②	③	④

Überprüfe Deine Angaben auf dieser Seite noch einmal und mach dann weiter.

Als nächstes geht es darum, in welchem Alter Du erwartest, bestimme Ereignisse zu erleben. Trage das Alter bitte in die **zweiten Spalte** ein. Solltest Du Dir **nicht sicher sein**, kannst Du auch eine **Altersspanne** (z.B. 18-20 Jahre) angeben. Wenn Du glaubst, dass Du das Ereignis **nicht erleben wirst**, dann mache bitte ein **Kreuz** in die Zeile.

Traust Du Dir zu, das Ereignis zu erreichen? Trage die Antwort bitte in der letzten Spalte ein. Die Antworten reichen von „1“ = **trifft gar nicht zu**, „2“ = **trifft kaum zu**, „3“ = **trifft teils/teils zu**, „4“ = **trifft etwas zu** bis „5“ = **trifft genau zu**.



	In welchem Alter wirst Du das wahrscheinlich erleben?	Ich traue mir das zu!				
		trifft gar nicht zu				trifft genau zu
1. Erfolgreich die Schule abschließen.		①	②	③	④	⑤
2. Eine Lehrstelle bekommen (Berufsausbildung).		①	②	③	④	⑤
3. Erfolgreich eine Lehre abschließen.		①	②	③	④	⑤
4. Zum ersten Mal voll berufstätig sein.		①	②	③	④	⑤
5. Das Leben selbst finanzieren können.		①	②	③	④	⑤
6. Aus dem Elternhaus ausziehen.		①	②	③	④	⑤
7. Eine eigene Wohnung haben.		①	②	③	④	⑤
8. Heiraten.		①	②	③	④	⑤
9. Zum ersten Mal Vater/Mutter werden		①	②	③	④	⑤
10. Verantwortung für mein Handeln und dessen Folgen übernehmen.		①	②	③	④	⑤
11. Unabhängige eigene Entscheidungen treffen.		①	②	③	④	⑤
12. Die eigenen Gefühle immer unter Kontrolle haben.		①	②	③	④	⑤

Überprüfe Deine Angaben auf dieser Seite noch einmal und blättere dann weiter auf die nächste Seite

Auf dieser Seite geht es darum, wie Jugendliche sich mit ihren Zielen beschäftigen. **Lies Dir den Satz links durch und gebe dann für jedes der zwei Ziele rechts daneben an, wie sehr die Aussage auf Dich zutrifft.**

Die Antworten reichen von „1“ = trifft gar nicht zu“, „2“ = trifft kaum zu, „3“ = trifft teils/teils zu, „4“ = trifft etwas zu bis „5“ = trifft genau zu. Wenn du noch nicht über eines der beiden Ziele nachdenkst, dann kreuze bei dem entsprechenden Ziel überall eine 1 an.



	In der Schule gute Noten bekommen					Wissen, welchen Beruf ich später mal ergreifen will				
	trifft gar nicht zu		trifft genau zu			trifft gar nicht zu		trifft genau zu		
1. Ich strenge mich sehr an, um dieses Ziel zu erreichen.	①	②	③	④	⑤	①	②	③	④	⑤
2. Um dieses Ziel zu erreichen, zögere ich nicht lange, sondern tue etwas dafür.	①	②	③	④	⑤	①	②	③	④	⑤
3. Ich verwende sehr viel Zeit, um dieses Ziel zu erreichen.	①	②	③	④	⑤	①	②	③	④	⑤
4. Falls ich dieses Ziel nicht erreiche, kümmere ich mich erst um was anderes, um es dann später noch mal zu versuchen.	①	②	③	④	⑤	①	②	③	④	⑤
5. Wenn ich selbst nicht mehr weiter weiß, überlege ich, wen ich um Hilfe bitten könnte.	①	②	③	④	⑤	①	②	③	④	⑤
6. Wenn ich dieses Ziel nicht schaffe, dann mache ich mir klar, dass andere noch weniger schaffen.	①	②	③	④	⑤	①	②	③	④	⑤
7. Falls ich dieses Ziel nicht erreiche, verschiebe ich es auf später.	①	②	③	④	⑤	①	②	③	④	⑤
8. Ich stelle mir immer wieder vor, wie glücklich ich sein werde, wenn ich dieses Ziel erreicht habe.	①	②	③	④	⑤	①	②	③	④	⑤
9. Wenn ich selbst nicht mehr weiter weiß, nehme ich jede Hilfe in Anspruch, die mich weiter bringt.	①	②	③	④	⑤	①	②	③	④	⑤
10. Ich sage mir immer wieder, dass ich es bestimmt schaffen kann, wenn ich nur will.	①	②	③	④	⑤	①	②	③	④	⑤
11. Ich scheue keine Mühe, dieses Ziel zu erreichen, Hauptsache, es lohnt sich.	①	②	③	④	⑤	①	②	③	④	⑤
12. Wenn ich nicht vorankomme, frage ich andere Leute um Rat.	①	②	③	④	⑤	①	②	③	④	⑤
13. Wenn nichts klappt, nehme ich das alles nicht mehr so wichtig.	①	②	③	④	⑤	①	②	③	④	⑤
14. Wenn ich es gar nicht schaffe, suche ich nach guten Argumenten dafür, dass es nicht an mir gelegen hat.	①	②	③	④	⑤	①	②	③	④	⑤
15. Wenn ich dieses Ziel nicht schaffe, dann mache ich mir klar, dass ich bei anderen Zielen erfolgreicher bin.	①	②	③	④	⑤	①	②	③	④	⑤

Überprüfe Deine Angaben auf dieser Seite noch einmal und blättere dann weiter auf die nächste Seite

Als nächstes folgt eine Liste von Eigenschaften und Verhaltensweisen, die bei Jugendlichen auftreten können. Gib bitte an **wie sehr die Eigenschaft/Verhaltensweise auf Dich zutrifft**.

0 = nicht zutreffend **1** = etwas oder manchmal zutreffend **2** = genau oder häufig zutreffend

- | | | | |
|--|-------|--|-------|
| 1. Ich verhalte mich zu jung für mein Alter..... | 0 1 2 | 27. Ich bin lieber allein als mit anderen zusammen..... | 0 1 2 |
| 2. Ich streite häufig oder widerspreche | 0 1 2 | 28. Ich bin nervös, reizbar oder angespannt | 0 1 2 |
| 3. Ich gebe an, schneide auf, prahle gerne | 0 1 2 | 29. Ich bin zu furchtsam oder zu ängstlich | 0 1 2 |
| 4. Ich habe Schwierigkeiten mich zu konzentrieren oder länger aufzupassen..... | 0 1 2 | 30. Ich fühle mich schwindelig..... | 0 1 2 |
| 5. Ich kann nicht lange stillsitzen..... | 0 1 2 | 31. Ich habe starke Schuldgefühle..... | 0 1 2 |
| 6. Ich fühle mich einsam..... | 0 1 2 | 32. Ich bin immer müde..... | 0 1 2 |
| 7. Ich bin durcheinander oder zerstreut | 0 1 2 | 33. Ich habe folgende Beschwerden ohne Bekannte körperliche Ursache | |
| 8. Ich weine viel..... | 0 1 2 | a. Schmerzen (außer Kopf- und Bauchschmerzen)..... | 0 1 2 |
| 9. Ich bin gemein zu anderen..... | 0 1 2 | b. Kopfschmerzen..... | 0 1 2 |
| 10. Ich bin tagsüber verträumt oder in Gedanken..... | 0 1 2 | c. Übelkeit..... | 0 1 2 |
| 11. Ich habe mich absichtlich verletzt oder versucht mich umzubringen..... | 0 1 2 | d. Augenbeschwerden (außer solche, die durch eine Brille korrigiert sind) | 0 1 2 |
| 12. Ich möchte viel Aufmerksamkeit oder Beachtung bekommen..... | 0 1 2 | e. Hautausschläge/Hautprobleme... | 0 1 2 |
| 13. Ich mache meine eigenen Sachen kaputt.... | 0 1 2 | f. Bauchschmerzen oder Magenkrämpfe..... | 0 1 2 |
| 14. Ich mache Sachen kaputt, die anderen gehören..... | 0 1 2 | g. Erbrechen | 0 1 2 |
| 15. Ich gehorche in der Schule nicht..... | 0 1 2 | 34. Ich greife andere körperlich an..... | 0 1 2 |
| 16. Wenn ich etwas Unüberlegtes getan habe, fühle ich mich nicht schuldig..... | 0 1 2 | 35. Ich bin schlecht in der Schule..... | 0 1 2 |
| 17. Ich bin auf andere eifersüchtig..... | 0 1 2 | 36. Ich bin unbeholfen/schwerfällig | 0 1 2 |
| 18. Ich habe Angst, etwas Schlimmes zu denken oder zu tun..... | 0 1 2 | 37. Ich bin lieber mit Älteren zusammen als mit Jugendlichen meines Alters | 0 1 2 |
| 19. Ich glaube, ich muss perfekt sein und alles gut können..... | 0 1 2 | 38. Ich will nicht sprechen..... | 0 1 2 |
| 20. Ich glaube, dass mich niemand mag..... | 0 1 2 | 39. Ich laufe von zu Hause weg..... | 0 1 2 |
| 21. Ich glaube, dass andere mir etwas antun wollen..... | 0 1 2 | 40. Ich schreie viel..... | 0 1 2 |
| 22. Ich fühle mich wertlos oder unterlegen | 0 1 2 | 41. Ich bin verschlossen, behalte Dinge für mich..... | 0 1 2 |
| 23. Ich gerate oft in Raufereien oder Schlägereien | 0 1 2 | 42. Ich bin befangen oder werde leicht verlegen..... | 0 1 2 |
| 24. Ich bin mit Jugendlichen zusammen, die in Schwierigkeiten geraten..... | 0 1 2 | 43. Ich zünde gerne oder habe schon Feuer gelegt..... | 0 1 2 |
| 25. Ich tue etwas, ohne zu überlegen..... | 0 1 2 | 44. Ich produziere mich gerne oder spiele den Clown..... | 0 1 2 |
| 26. Ich lüge oder schwindele..... | 0 1 2 | 45. Ich bin schüchtern..... | 0 1 2 |

Auf der nächsten Seite geht es weiter!!

Bearbeite diese Seite genauso wie die Seite davor!

0 = nicht zutreffend **1** = etwas oder manchmal zutreffend **2** = genau oder häufig zutreffend

- | | | | |
|---|-----|--|-----|
| 46. Ich habe zu Hause gestohlen..... | ① ② | 56. Ich habe anderen gedroht, sie zu verletzen..... | ① ② |
| 47. Ich habe anderswo gestohlen..... | ① ② | 57. Ich schwänze die Schule oder einzelne Schulstunden..... | ① ② |
| 48. Ich bin eigensinnig, dickköpfig | ① ② | 58. Ich habe nicht genug Energie..... | ① ② |
| 49. Meine Stimmung oder Gefühle wechseln plötzlich..... | ① ② | 59. Ich bin unglücklich, traurig oder niedergeschlagen..... | ① ② |
| 50. Ich bin misstrauisch..... | ① ② | 60. Ich bin lauter als andere Jugendliche..... | ① ② |
| 51. Ich fluche oder gebrauche unanständige Wörter..... | ① ② | 61. Ich trinke Alkohol, nehme Drogen oder Medikamente, die nicht vom Arzt verschrieben wurden..... | ① ② |
| 52. Ich denke darüber nach, mich umzubringen..... | ① ② | 62. Ich mache mir viele Sorgen..... | ① ② |
| 53. Ich rede zuviel..... | ① ② | 63. Ich bin zurückhaltend, nehme keinen Kontakt zu anderen auf..... | ① ② |
| 54. Ich hänsle andere gern..... | ① ② | | |
| 55. Ich gerate leicht in Zorn, habe ein hitziges Temperament..... | ① ② | | |

Nun geht es um **die Atmosphäre in Deiner Familie**. Kreuze bitte an wie sehr jede Aussage auf Deine Familie zutrifft. Die Antworten reichen von **1 = trifft gar nicht zu**, **„2“ = trifft kaum zu**, **„3“ = trifft teils/teils zu**, **„4“ = trifft überwiegend zu** bis **„5 = trifft genau zu**.

1. Jeder hat in unserer Familie die gleichen Rechte, wenn etwas zu entscheiden gilt	①	②	③	④	⑤
2. In unserer Familie wird es nicht gern gesehen, wenn jemand sagt, dass einem etwas nicht passt.	①	②	③	④	⑤
3. Bei uns zuhause sind wir eher zurückhaltend, wenn es darum geht, seine Meinung offen zu sagen.	①	②	③	④	⑤
4. In unserer Familie findet man es ganz in Ordnung, wenn jeder seine eigenen Interessen vertritt.	①	②	③	④	⑤
5. In unserer Familie kann jeder seinen eigenen Interessen und Vorlieben nachgehen, ohne dass die anderen deswegen sauer sind.	①	②	③	④	⑤
6. Bei uns zuhause hat jeder die gleiche Stimme, wenn etwas entschieden wird, was für die ganze Familie wichtig ist.	①	②	③	④	⑤
7. In unserer Familie ist es eher so, dass man seine Gefühle nicht zeigt.	①	②	③	④	⑤
8. In unserer Familie geht jeder auf die Sorgen und Nöte des anderen ein.	①	②	③	④	⑤
9. In unserer Familie achten wir darauf, dass jeder möglichst unabhängig und auf sich selbst gestellt sein kann.	①	②	③	④	⑤

Bitte gib an, wie sehr die Aussagen auf dich zutreffen. Die Antworten reichen von „1“ = **trifft gar nicht zu**, „2“ = **trifft kaum zu**, „3“ = **trifft teils/teils zu**, „4“ = **trifft überwiegend zu** bis „5“ = **trifft genau zu**.

1. Es fällt mir schwer zu entscheiden, was ich will.	①	②	③	④	⑤
2. Ich kann Entscheidungen leicht fällen.	①	②	③	④	⑤
3. Ich weiß oft nicht, was ich denken soll.	①	②	③	④	⑤
4. Wenn andere mich fragen, was ich will, dann weiß ich sofort die Antwort.	①	②	③	④	⑤
5. Ich bin mir oft unsicher, was ich tun soll.	①	②	③	④	⑤
6. Wenn ich gegen den Willen von anderen etwas tue, dann werde ich meistens nervös.	①	②	③	④	⑤
7. Ich richte mich meist nach den Wünschen anderer Menschen.	①	②	③	④	⑤
8. Wenn ich mit anderen nicht übereinstimme, dann sage ich ihnen das.	①	②	③	④	⑤
9. Ich stimme anderen oft zu, auch wenn ich mir unsicher bin.	①	②	③	④	⑤
10. Ich ändere oft meine Meinung, nachdem ich anderen zugehört habe.	①	②	③	④	⑤
11. Ich verfolge meine Ziele direkt.	①	②	③	④	⑤
12. Es fällt mir schwer, neue Aktivitäten selbst zu beginnen.	①	②	③	④	⑤
13. Es fällt mir leicht, mit neuen Vorhaben anzufangen.	①	②	③	④	⑤
14. Ich bin eine abenteuerlustige Person.	①	②	③	④	⑤
15. Ich fühle mich schnell wohl in neuen Situationen.	①	②	③	④	⑤
16. Auch in ungewissen Zeiten erwarte ich normalerweise das Beste.	①	②	③	④	⑤
17. Wenn bei mir etwas schief laufen kann, dann tut es das auch.	①	②	③	④	⑤
18. Meine Zukunft sehe ich immer optimistisch.	①	②	③	④	⑤
19. Fast nie entwickeln sich die Dinge nach meinen Vorstellungen.	①	②	③	④	⑤
20. Ich zähle selten darauf, dass mir etwas Gutes widerfährt.	①	②	③	④	⑤
21. Alles in allem erwarte ich, dass mir mehr gute als schlechte Dinge widerfahren.	①	②	③	④	⑤

Überprüfe Deine Angaben auf dieser Seite noch einmal und blättere dann weiter auf die nächste Seite. Du hast es fast geschafft!

Nun geht es um das **Verhalten Deiner Mutter**. Kreuze in der ersten Spalte an, wie oft Deine Mutter das Verhalten zeigt. Die Antworten reichen von „1“ = „Niemals“, „2“ = „Gelegentlich“, „3“ = „Oft“ bis „4“ = „Ständig“.

Meine Mutter...				
1. ...tröstet mich, wenn ich in Schwierigkeiten stecke.	①	②	③	④
2. ...geht meistens sehr freundschaftlich/ liebevoll mit mir um.	①	②	③	④
3. ... ist für mich da, wenn ich sie brauche.	①	②	③	④
4. ...bringt mir Dinge bei, die ich gerne lernen möchte.	①	②	③	④
5. ...lobt mich, wenn ich etwas gut gemacht habe.	①	②	③	④
6. ...muntert mich wieder auf, wenn ich in der Schule schlechte Noten habe.	①	②	③	④
7. ...nimmt Rücksicht auf mich und erwartet dasselbe von mir.	①	②	③	④
8. ...legt Wert auf meine Meinung, auch wenn sie andere Ansichten hat.	①	②	③	④
9. ...verzichtet auf einiges, nur um mir eine Freude zu machen.	①	②	③	④
10. ...erklärt mir den Grund, wenn sie etwas von mir verlangt.	①	②	③	④
11. ...hilft mir bei den Hausaufgaben, wenn ich etwas nicht verstehe.	①	②	③	④
12. ...hat es gern, wenn ich meine Freunde mit nach Hause bringe.	①	②	③	④
13. ...hat klare Regeln und Vorschriften, wie ich mich zu verhalten habe.	①	②	③	④
14. ...erwartet, dass ich meine Sachen in Ordnung halte.	①	②	③	④
15. ...sagt mir immer genau, wann ich abends nach Hause kommen muss.	①	②	③	④
16. ...möchte immer gefragt werden, bevor ich ausgehen darf.	①	②	③	④
17. ...will genau wissen, wofür ich Geld ausgebe.	①	②	③	④
18. ...will, dass ich im Haushalt helfe.	①	②	③	④

**Wenn Du fertig bist, dann melde Dich leise. Es kommt jemand um den Fragebogen einzusammeln. Bitte verhalte Dich danach ruhig, damit Du die anderen nicht störst.
Danke für Deine Teilnahme!**

Liebe Schülerin, lieber Schüler,

Vielen Dank, dass Du Dich bereiterklärst hast bei meiner Studie mitzumachen. Damit hilfst Du mir sehr!

Auf den folgenden Seiten erwarten Dich Fragen, die Deine Person, betreffen. Damit sind Fragen zu Zielen sowie Fragen zu Deiner Persönlichkeit, Deinen Verhaltensweisen und Deinen Erfahrungen gemeint. Bitte lies Dir jede Frage sorgfältig durch und beantworte sie.

Kreuze bitte immer **nur eine Antwort an** und **lass keine Frage aus**. Es interessiert Deine eigene Antwort auf jede Aussage. **Es gibt also keine richtigen oder falschen Antworten!** Wenn Du feststellst, dass Du doch was anderes ankreuzen wolltest, obwohl Du schon angekreuzt hast, dann korrigiere bitte indem Du einen Kreis um die „alte“ Antwort machst und dann die für Dich „neue“ Antwort ankreuzt.

Selbstverständlich gehe ich mit **allen Angaben streng vertraulich** um. Es wird niemand außer mir und meinen wissenschaftlichen Mitarbeitern/Hilfskräften (also kein Lehrer, kein Elternteil und keine andere Person) Deinen ausgefüllten Fragebogen zu sehen bekommen. **Die Befragung ist außerdem anonym**. Ich frage nicht nach Deinem Namen oder Deiner Adresse. Du kannst jederzeit, ohne einen Grund zu nennen, abbrechen, wenn Du das möchtest. Den Fragebogen auszufüllen ist keine Pflicht und wird auch nicht benotet. Falls Dir eine Frage zu persönlich wird bzw. Dir zu nahe geht und es Dir sehr unangenehm wäre sie zu beantworten, dann kannst Du sie auch gerne auslassen. Wenn Du während des Ausfüllens noch Fragen hast, dann melde Dich bitte, damit Deine Mitschülerinnen und Mitschüler nicht gestört werden.

Zunächst möchte ich jedoch, dass Du einen speziellen Code ausfüllst. Der Code besteht aus folgendem Muster: Schreibe bitte in das erste Kästchen den **ersten Buchstaben des Vornamens Deiner Mutter**, in das **zweite Kästchen den ersten Buchstaben Deines Vornamens** und in die **vier weiteren Kästchen die Ziffern für Deinen Geburtstag und Deinen Geburtsmonat**.

Wenn zum Beispiel die Mutter Martina und der Junge Felix heißt und wenn Felix am 01. April Geburtstag hat, lautet der Code:

M	F	0	1	0	4
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Dein Code:

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Viel Spaß beim Ausfüllen!

Zunächst einige kurze Angaben zu Deiner Person

1. Dein Alter _____ Jahre
2. Dein Geschlecht ☐ männlich ☐ weiblich
3. In welche Klasse gehst Du? _____

4. Deine letzte Zeugnisnote in

Mathematik	
------------	--

Deutsch	
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Geschichte	
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Englisch	
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5. Bei wem wohnst Du? ☐ bei meinen Eltern
☐ bei meiner Mutter
☐ bei meinem Vater
☐ bei Pflegeeltern
☐ im Heim
6. Sind Du oder Deine Eltern (oder ein Elternteil) außerhalb von Deutschland geboren?
☐ Ja ☐ Nein
7. Der Schulabschluss Deiner Eltern:
☐ keinen Abschluss ☐ Hauptschulabschluss ☐ Realschulabschluss
☐ Abitur/Fachabitur ☐ Ausbildung ☐ Hochschulabschluss
☐ keine Ahnung
8. Hast Du gerade eine Partnerschaftsbeziehung? ☐ Ja ☐ Nein
8. a) Geht Dein/e Partner/in auf dieselbe Schule wie Du? ☐ Ja ☐ Nein
9. Was würdest Du sagen, wie viele enge Freunde Du hast? _____
10. Wie viele **Freunde** hast Du in Deiner **Klasse**? _____
11. Gehörst Du derzeit einer Gruppe von Gleichaltrigen an? ☐ Ja ☐ Nein

11. a) **Wenn Du zu einer Gruppe von Gleichaltrigen dazugehörst**, bist Du dann eher jemand der

- ☐ bestimmt, was gemacht wird
☐ dabei ist
☐ am Rande steht?

11. b) **Wenn Du zu einer Gruppe von Gleichaltrigen dazugehörst**, besteht diese Gruppe

- ☐ vor allem aus Schülern Deiner Schule
☐ vor allem aus anderen Jugendlichen
☐ aus Schülern Deiner Schule und anderen Jugendlichen?

Überprüfe Deine Angaben auf dieser Seite noch einmal und blättere dann weiter auf die nächste Seite

Auf den nächsten Seiten geht es um Lebensziele, die viele Jugendliche haben. Hast du das Ziel schon erreicht? Die Antworten reichen von „1“ = **Nein**, „2“ = **Eher nein**, „3“ = **Eher ja** bis „4“ = **Ja**.

	Ich habe das schon erreicht!			
	Nein	Eher nein	Eher ja	Ja
1. Zu einer Gruppe von Jugendlichen in meinem Alter dazugehören.	①	②	③	④
2. Meinen Körper so zu akzeptieren, wie er ist.	①	②	③	④
3. Klare Vorstellungen darüber haben, wie ich mein Leben gestalten will (z.B. Familie, Beruf, Wohnort etc.).	①	②	③	④
4. Unabhängig von meinen Eltern sein.	①	②	③	④
5. In der Schule gute Noten bekommen.	①	②	③	④
6. Wissen, welchen Beruf ich später mal ergreifen will.	①	②	③	④
7. Wissen/Fähigkeiten in der Schule erwerben, die für meinen späteren Beruf wichtig sind.	①	②	③	④
8. Meine Stärken und Schwächen kennen (wissen was ich gut & was ich schlecht kann).	①	②	③	④
9. Eine Partnerschaftsbeziehung haben.	①	②	③	④
10. Einen guten Freund/in haben, mit dem/der ich über fast alles reden kann.	①	②	③	④
11. Klare Vorstellungen haben, was man als Mann/Frau später von mir erwartet.	①	②	③	④
12. Sozial verantwortungsvoll handeln (im Handeln nicht nur an das eigene Wohl denken, sondern auch an das Wohl der anderen).	①	②	③	④

Überprüfe Deine Angaben auf dieser Seite noch einmal und mach dann weiter.

Als nächstes folgt eine Liste von Eigenschaften und Verhaltensweisen, die bei Jugendlichen auftreten können. Gib bitte an **wie sehr die Eigenschaft/Verhaltensweise auf Dich zutrifft**.

0 = nicht zutreffend **1** = etwas oder manchmal zutreffend **2** = genau oder häufig zutreffend

- | | | | |
|--|-------|--|-------|
| 1. Ich streite häufig oder widerspreche | 0 1 2 | 27. Ich habe folgende Beschwerden ohne Bekannte körperliche Ursache | |
| 2. Ich gebe an, schneide auf, prahle gerne | 0 1 2 | a. Schmerzen (außer Kopf- und Bauchschmerzen)..... | 0 1 2 |
| 3. Ich fühle mich einsam..... | 0 1 2 | b. Kopfschmerzen..... | 0 1 2 |
| 4. Ich weine viel..... | 0 1 2 | c. Übelkeit..... | 0 1 2 |
| 5. Ich bin gemein zu anderen..... | 0 1 2 | d. Augenbeschwerden (außer solche, die durch eine Brille korrigiert sind)..... | 0 1 2 |
| 6. Ich habe mich absichtlich verletzt oder versucht mich umzubringen..... | 0 1 2 | e. Hautausschläge/Hautprobleme..... | 0 1 2 |
| 7. Ich möchte viel Aufmerksamkeit oder Beachtung bekommen..... | 0 1 2 | f. Bauchschmerzen oder Magenkrämpfe..... | 0 1 2 |
| 8. Ich mache meine eigenen Sachen kaputt..... | 0 1 2 | g. Erbrechen | 0 1 2 |
| 9. Ich mache Sachen kaputt, die anderen gehören..... | 0 1 2 | 28. Ich greife andere körperlich an..... | 0 1 2 |
| 10. Ich gehorche in der Schule nicht..... | 0 1 2 | 29. Ich bin lieber mit Älteren zusammen als mit Jugendlichen meines Alters | 0 1 2 |
| 11. Wenn ich etwas Unüberlegtes getan habe, fühle ich mich nicht schuldig..... | 0 1 2 | 30. Ich will nicht sprechen..... | 0 1 2 |
| 12. Ich bin auf andere eifersüchtig..... | 0 1 2 | 31. Ich laufe von zu Hause weg..... | 0 1 2 |
| 13. Ich habe Angst, etwas Schlimmes zu denken oder zu tun..... | 0 1 2 | 32. Ich schreie viel..... | 0 1 2 |
| 14. Ich glaube, ich muss perfekt sein und alles gut können..... | 0 1 2 | 33. Ich bin verschlossen, behalte Dinge für mich..... | 0 1 2 |
| 15. Ich glaube, dass mich niemand mag..... | 0 1 2 | 34. Ich bin befangen oder werde leicht verlegen..... | 0 1 2 |
| 16. Ich glaube, dass andere mir etwas antun wollen..... | 0 1 2 | 35. Ich zünde gerne oder habe schon Feuer gelegt..... | 0 1 2 |
| 17. Ich fühle mich wertlos oder unterlegen | 0 1 2 | 36. Ich produziere mich gerne oder spiele den Clown..... | 0 1 2 |
| 18. Ich gerate oft in Raufereien oder Schlägereien | 0 1 2 | 37. Ich bin schüchtern..... | 0 1 2 |
| 19. Ich bin mit Jugendlichen zusammen, die in Schwierigkeiten geraten..... | 0 1 2 | 38. Ich habe zu Hause gestohlen..... | 0 1 2 |
| 20. Ich lüge oder schwindele..... | 0 1 2 | 39. Ich habe anderswo gestohlen..... | 0 1 2 |
| 21. Ich bin lieber allein als mit anderen Zusammen..... | 0 1 2 | 40. Ich bin eigensinnig, dickköpfig | 0 1 2 |
| 22. Ich bin nervös, reizbar oder angespannt..... | 0 1 2 | 41. Meine Stimmung oder Gefühle wechseln plötzlich..... | 0 1 2 |
| 23. Ich bin zu furchtsam oder zu ängstlich | 0 1 2 | 42. Ich bin misstrauisch..... | 0 1 2 |
| 24. Ich fühle mich schwindelig..... | 0 1 2 | 43. Ich rede zuviel..... | 0 1 2 |
| 25. Ich habe starke Schuldgefühle..... | 0 1 2 | 44. Ich fluche oder gebrauche unanständige Wörter..... | 0 1 2 |
| 26. Ich bin immer müde..... | 0 1 2 | | |

Auf der nächsten Seite geht es weiter!!

Bearbeite diese Seite genauso wie die Seite davor!

0 = nicht zutreffend	1 = etwas oder manchmal zutreffend	2 = genau oder häufig zutreffend
-----------------------------	---	---

- | | |
|---|---|
| 45. Ich denke darüber nach, mich umzubringen..... ① ②
46. Ich hänsele andere gern..... ① ②
47. Ich gerate leicht in Zorn, habe ein hitziges Temperament..... ① ②
48. Ich habe anderen gedroht, sie zu verletzen..... ① ②
49. Ich schwänze die Schule oder einzelne Schulstunden..... ① ②
50. Ich habe nicht genug Energie..... ① ② | 51. Ich bin unglücklich, traurig oder niedergeschlagen..... ① ②
52. Ich bin lauter als andere Jugendliche..... ① ②
53. Ich trinke Alkohol, nehme Drogen oder Medikamente, die nicht vom Arzt verschrieben wurden..... ① ②
54. Ich mache mir viele Sorgen..... ① ②
55. Ich bin zurückhaltend, nehme keinen Kontakt zu anderen auf..... ① ② |
|---|---|

Bei den nächsten Fragen geht es darum, wie Gleichaltrige in den letzten 12 Monaten mit Dir umgegangen sind. Die Antwortmöglichkeiten gehen von 1 bis 5, wobei 1 für „**niemals**“ und 5 für „**ständig**“ steht.

	niemals	ständig
1. Wie oft wurdest du absichtlich von Freizeitaktivitäten oder anderen Tätigkeiten mit Gleichaltrigen durch die anderen ausgeschlossen?	① ② ③ ④ ⑤	
2. Wie oft hat jemand, der böse auf dich war, es dir heimgezahlt, indem er/sie dich aus einer Gruppe ausgeschlossen hat?	① ② ③ ④ ⑤	
3. Wie oft hat jemand Lügen über dich erzählt, damit Gleichaltrige dich nicht mehr mögen?	① ② ③ ④ ⑤	
4. Wie oft hat dir jemand schon gesagt, dass er dich nur dann mag, wenn du tust was er/sie verlangt?	① ② ③ ④ ⑤	
5. Wie oft hat jemand versucht Dich unbeliebt bei Gleichaltrigen zu machen, indem er/sie gemeine Dinge über dich gesagt hat?	① ② ③ ④ ⑤	
6. Wie oft wurdest du von Gleichaltrigen geschlagen?	① ② ③ ④ ⑤	
7. Wie oft wurdest du von anderen Gleichaltrigen gestoßen oder geschubst?	① ② ③ ④ ⑤	
8. Wie oft wurdest du von Gleichaltrigen getreten oder an den Haaren gezogen?	① ② ③ ④ ⑤	

9. Kamen die Jugendlichen, die dies mit Dir gemacht haben...

- ☐ ... nur von Deiner Schule
☐ ... überwiegend von Deiner Schule
☐ ... teils von Deiner Schule und teils von außerhalb
☐ ... überwiegend nicht von Deiner Schule
☐ ... nie von Deiner Schule

Bei den nächsten Fragen geht es darum, wie Du mit Gleichaltrigen in den letzten 12 Monaten umgegangen bist. Sei dabei bitte so ehrlich wie möglich, die Antworten von Dir bekommt niemand zu sehen! Die Antwortmöglichkeiten gehen von 1 bis 5, wobei 1 für „niemals“ und 5 für „ständig“ steht.

	niemals				ständig
1. Wie oft hast Du jemanden absichtlich bei Freizeitaktivitäten oder anderen Tätigkeiten ausgeschlossen?	①	②	③	④	⑤
2. Wie oft hast Du es jemand, auf den Du böse warst, heimgezahlt, indem Du ihn/sie aus Deiner Gruppe ausgeschlossen hast?	①	②	③	④	⑤
3. Wie oft hast Du über jemand anderes Lügen erzählt, damit Gleichaltrige ihn/sie nicht mehr mögen?	①	②	③	④	⑤
4. Wie oft hast Du jemand schon gesagt, dass Du ihn/sie nur dann magst, wenn er/sie tut was Du verlangst?	①	②	③	④	⑤
5. Wie oft hast Du versucht, jemanden unbeliebt zu machen, indem Du gemeine Dinge über ihn/sie gesagt hast?	①	②	③	④	⑤
6. Wie oft hast du Gleichaltrige geschlagen?	①	②	③	④	⑤
7. Wie oft hast du Gleichaltrige gestoßen oder geschubst?	①	②	③	④	⑤
8. Wie oft hast du Gleichaltrige getreten oder an den Haaren gezogen?	①	②	③	④	⑤

9. Wenn Du dies getan hast, kamen die betroffenen Jugendlichen...

- ☐ ... nur von Deiner Schule
- ☐ ... überwiegend von Deiner Schule
- ☐ ... teils von Deiner Schule und teils von außerhalb
- ☐ ... überwiegend nicht von Deiner Schule
- ☐ ... nie von Deiner Schule

Auf der nächsten Seite geht es weiter!!

Im Folgenden geht es darum, ob du deinen Lehrern, Eltern und Freunden davon erzählst, wenn so etwas passiert und ob diese dann einschreiten. Die Antwortmöglichkeiten gehen von 1-5, wobei 1 für „**niemals**“ und 5 für „**ständig**“ steht.

	niemals				ständig
1. Ich erzähle meinen Lehrer, wenn andere Schüler mich von Aktivitäten ausschließen oder gemein über mich reden.	①	②	③	④	⑤
2. Meine Lehrer schreiten ein (helfen), wenn ich von anderen Schülern bei Aktivitäten ausgeschlossen oder gemein über mich geredet wird.	①	②	③	④	⑤
3. Ich erzähle meinen Lehrern, wenn ich von anderen Schülern geschubst, getreten oder geschlagen werde.	①	②	③	④	⑤
4. Meine Lehrer schreiten ein (helfen), wenn ich von anderen Schülern geschubst, getreten oder geschlagen werde.	①	②	③	④	⑤
5. Ich erzähle meinen Eltern, wenn andere Schüler mich von Aktivitäten ausschließen oder gemein über mich reden.	①	②	③	④	⑤
6. Meine Eltern schreiten ein (helfen), wenn ich in der Schule bei Aktivitäten ausgeschlossen oder gemein über mich geredet wird.	①	②	③	④	⑤
7. Ich erzähle meinen Eltern, wenn ich von anderen Schülern geschubst, getreten oder geschlagen werde.	①	②	③	④	⑤
8. Meine Eltern schreiten ein (helfen), wenn ich in der Schule geschubst, getreten oder geschlagen werde.	①	②	③	④	⑤
9. Ich erzähle meinen Freunden, wenn andere Schüler mich von Aktivitäten ausschließen oder gemein über mich reden.	①	②	③	④	⑤
10. Meine Freunde schreiten ein (helfen), wenn ich in der Schule bei Aktivitäten ausgeschlossen oder gemein über mich geredet wird.	①	②	③	④	⑤
11. Ich erzähle meinen Freunden, wenn ich von anderen Schülern geschubst, getreten oder geschlagen werde.	①	②	③	④	⑤
12. Meine Freunde schreiten ein (helfen), wenn ich in der Schule geschubst, getreten oder geschlagen werde	①	②	③	④	⑤
13. In meiner Schule gibt es klare Regeln um zu verhindern, dass Jemand geschlagen, geschubst oder getreten wird.	①	②	③	④	⑤

**Überprüfe Deine Angaben auf dieser Seite noch einmal und mach dann weiter.
Du hast es fast geschafft**

Bitte gib an, wie sehr die Aussagen auf Dich zutreffen. Die Antworten reichen von „1“ = **trifft gar nicht zu**, „2“ = **trifft kaum zu**, „3“ = **trifft teils/teils zu**, „4“ = **trifft überwiegend zu** bis „5“ = **trifft genau zu**

	Trifft gar nicht zu trifft genau zu				
1. Es fällt mir schwer zu entscheiden, was ich will.	①	②	③	④	⑤
2. Ich kann Entscheidungen leicht fällen.	①	②	③	④	⑤
3. Ich weiß oft nicht, was ich denken soll.	①	②	③	④	⑤
4. Wenn andere mich fragen, was ich will, dann weiß ich sofort die Antwort.	①	②	③	④	⑤
5. Ich bin mir oft unsicher, was ich tun soll.	①	②	③	④	⑤
6. Wenn ich gegen den Willen von anderen etwas tue, dann werde ich meistens nervös.	①	②	③	④	⑤
7. Ich richte mich meist nach den Wünschen anderer Menschen.	①	②	③	④	⑤
8. Wenn ich mit anderen nicht übereinstimme, dann sage ich ihnen das.	①	②	③	④	⑤
9. Ich stimme anderen oft zu, auch wenn ich mir unsicher bin.	①	②	③	④	⑤
10. Ich ändere oft meine Meinung, nachdem ich anderen zugehört habe.	①	②	③	④	⑤
11. Ich verfolge meine Ziele direkt.	①	②	③	④	⑤
12. Es fällt mir schwer, neue Aktivitäten selbst zu beginnen.	①	②	③	④	⑤
13. Es fällt mir leicht, mit neuen Vorhaben anzufangen.	①	②	③	④	⑤
14. Ich bin eine abenteuerlustige Person.	①	②	③	④	⑤
15. Ich fühle mich schnell wohl in neuen Situationen.	①	②	③	④	⑤

**Wenn Du fertig bist, dann melde Dich leise. Es kommt jemand um den Fragebogen einzusammeln. Bitte verhalte Dich danach ruhig, damit Du die anderen nicht störst.
Danke für Deine Teilnahme!**

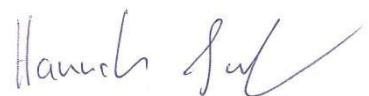
8. Erklärung

Ich versichere, dass ich meine Dissertation

„Developmental Regulation in Adolescents With and Without Emotional and Behavioral Disturbances Attending Different School Types“

selbstständig ohne unerlaubte Hilfe angefertigt und mich dabei keiner anderen als der von mir ausdrücklich bezeichneten Quellen und Hilfen bedient habe.

Die Dissertation wurde in der jetzigen oder einer ähnlichen Form noch bei keiner anderen Hochschule eingereicht und hat noch keinen sonstigen Prüfungszwecken gedient.



Marburg an der Lahn, Januar 2016

Hannah Margraf